PRINTING PRODUCTION

Heart of a Trade Plant—The Production Center (SEE PAGE 5)

IN THIS ISSUE

Places Blame for Status of Graphic Arts Research

Benefits from an Air Conditioned Plant

Nicohol Treatment Ends Blind Deep-etch Plates

So Simple... and Efficient

Devices for the automatic interruption of an electrical circuit are commonplace. Washing machines and clothes dryers turn themselves off after a particular interval. Clock radios not only automatically turn on but can also start heating the morning coffee.

The Selectro-Matic Quadder Short Line Device is simpler than any of these and is just as efficient. It automatically interrupts the circuit between the quadder controls and the quadding mechanism whenever a line is full enough to justify. It does this by means of a trip finger which closes a Microswitch, cancelling out the quadding function for the casting cycle. This allows the line to justify and cast on full measure.

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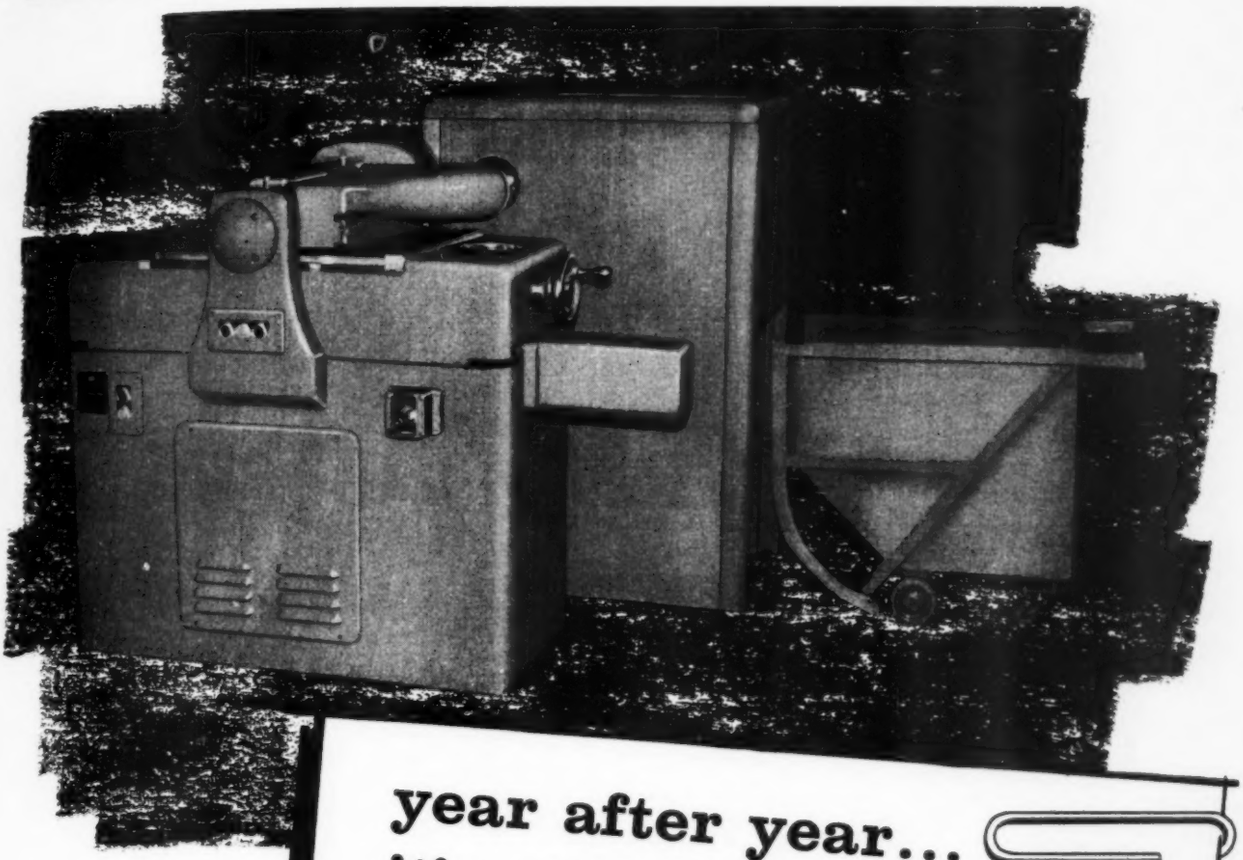

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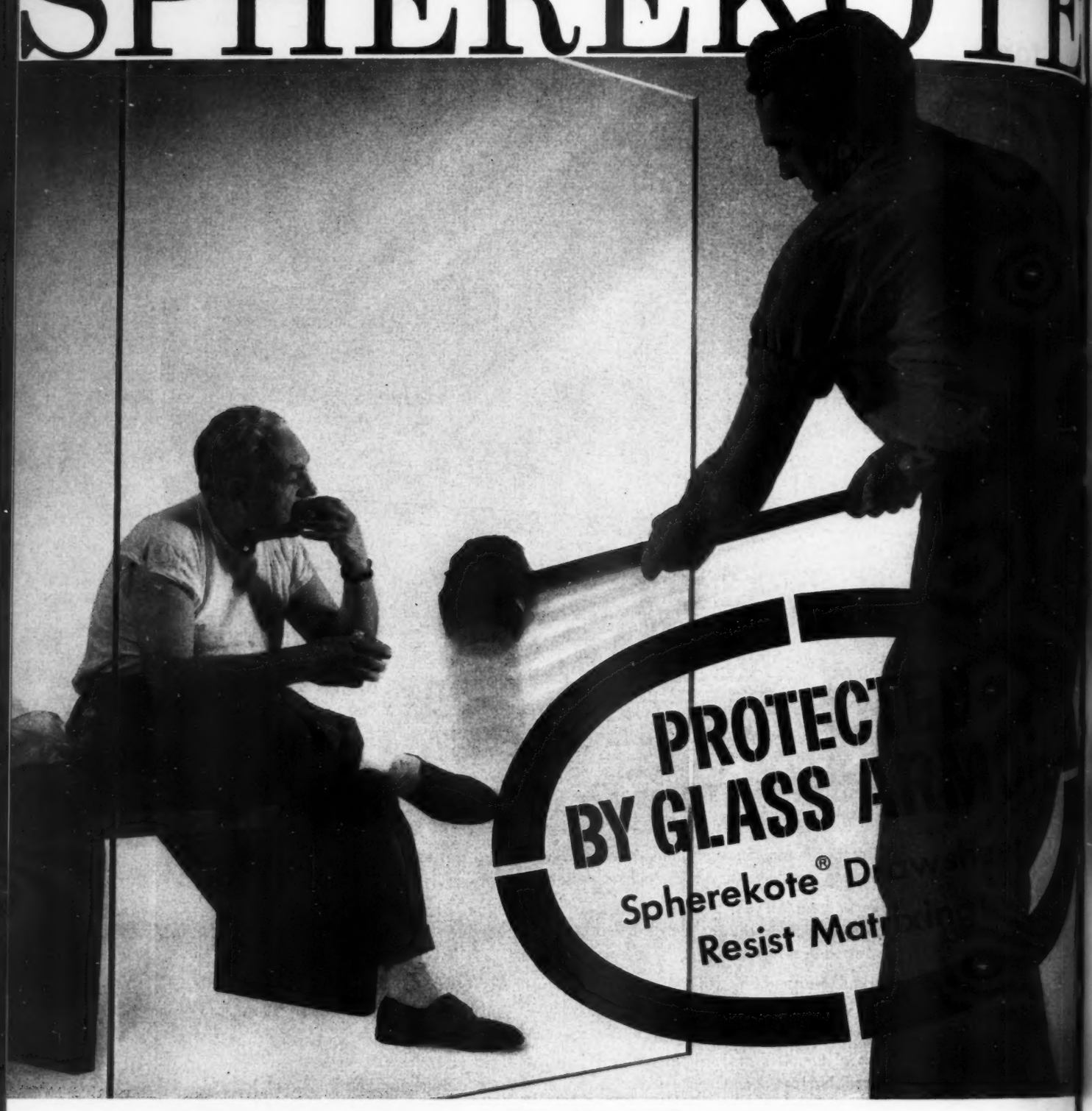

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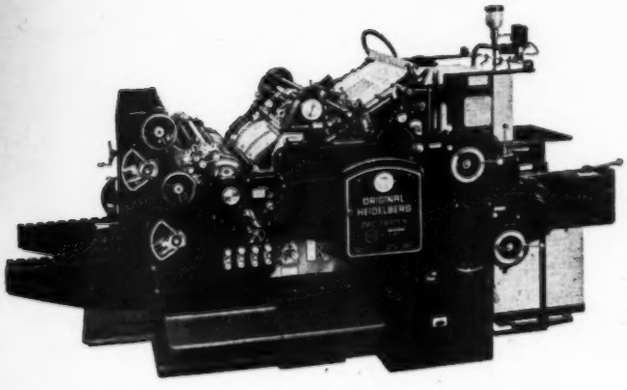

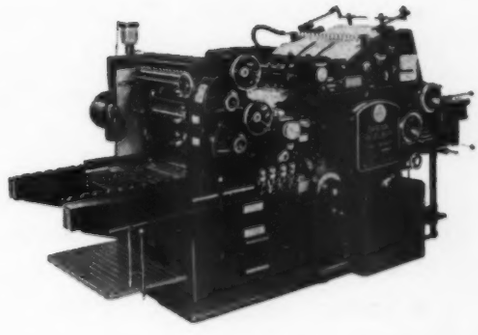

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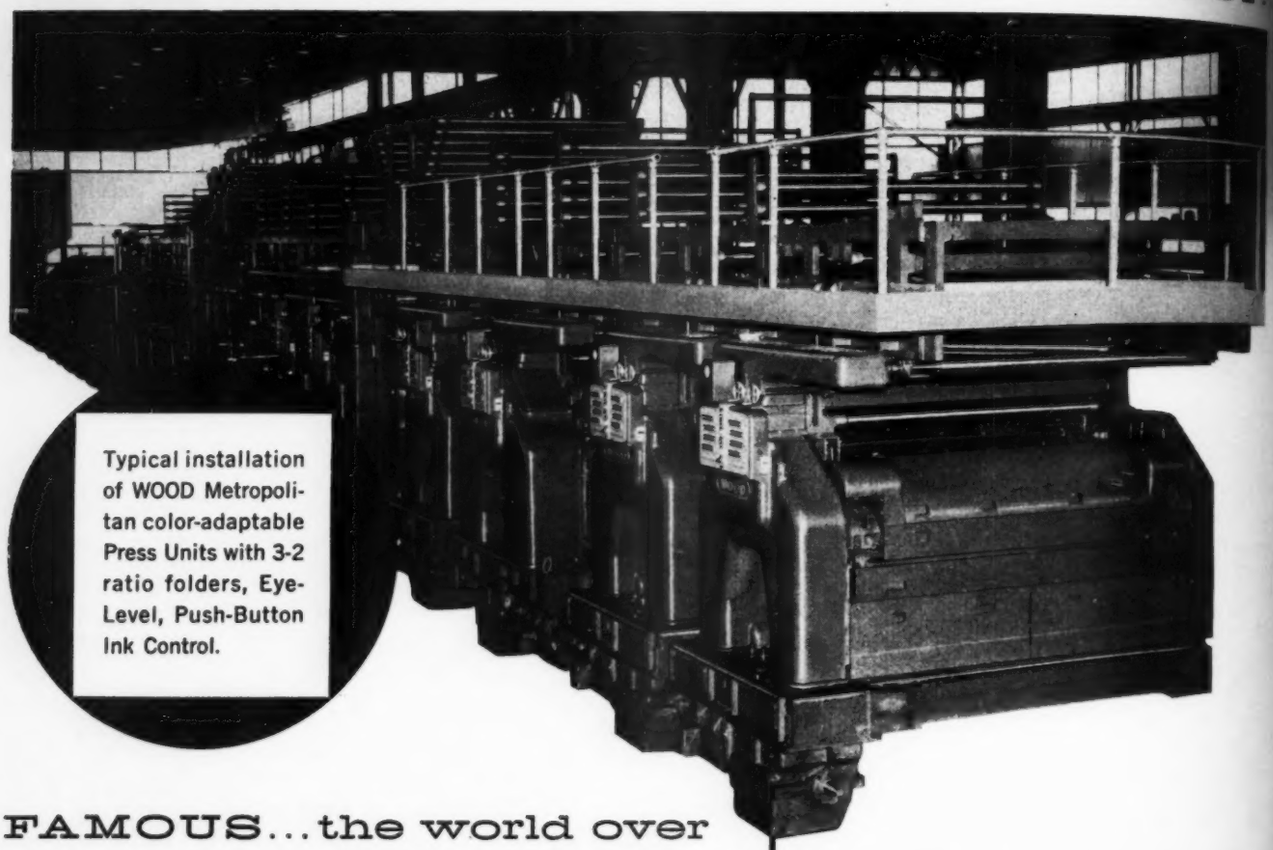

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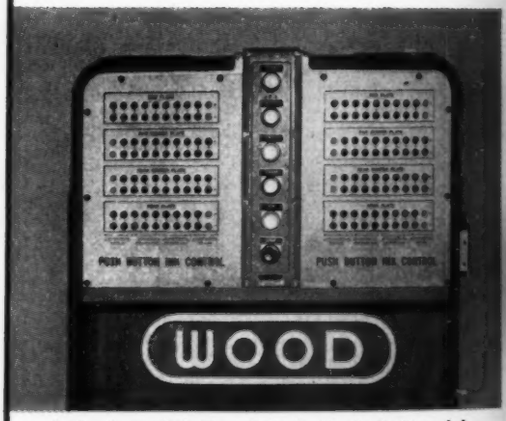

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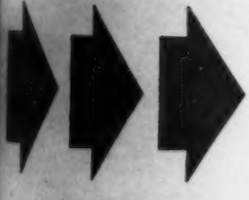

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SEPTEMBER 1959
VOL. 89, NO. 12

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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OUR COVER shows production control center for all jobs going through Monsen Typographers' Los Angeles plant. The Lazy Susan wheel on the Customer Service Desk contains all current jobs in work. It rotates easily on ball bearings for quick reference. Tickets for each job are kept here and are not removed until the job is completed and is ready for billing. Foreground: Markup men John Conroy and Howard Neil expedite all jobs. Background: Manager Joe Kristan explains a job to James Sorg, one of the salesmen. Little charts on wheel rim show type faces available. See story, page 41.

LETTERS
TO THE EDITORS

Receives First Issue

I have just read the first issue of your wonderful magazine which I was awarded as a one year's subscription at New York City Community College. I find PRINTING PRODUCTION is an indispensable tool for the printing industry.

You may count me as a regular subscriber after this subscription award expires.

John Capson
New York, N. Y.

Informative Article

Can you send me six extra copies of the May issue containing Lisle Baker's article (page 42) on the Louisville photocomposition system? That was a very good article.

Allan M. Woods,
Production Manager,
Garden City (L. I.) *Newsday*

Press Speed is 4000 i.p.h.

In the description of the Original Heidelberg two color presses, page 76, July issue, there is an error in the picture caption. Maximum speed of the 21 in. by 28 in. OHC two color press is 4000 i.p.h. —not 5000 sheets per hr. as was printed in that issue.

In the text you have stated it correctly at 4000 sheets per hr. for the 21 in. by 28 in. OHC two color and 5000 sheets per hr. for the 15 in. by 20½ in. OHC two color press.

J. J. McCall,
Heidelberg Eastern, Inc.

Consultant Feels Consultant Stated Case Well

Looking back over some 22 years of consulting work in the printng industry, I can state unreservedly that the article entitled *Value from Consulting Dollars* in the July issue of PRINTING PRODUCTION (page 44) presents the case better, more accurately and more comprehensively than anything else on this subject which I have ever been privileged to see.

I feel that the author, Frank A. DeWitt, has done a tremendous service to all of us in that line of work. It is my profound hope that his message will reach a substantial portion of those who could profit by it, and who will benefit from such guidance.

Olin E. Freedman
Graphic Arts Consultant
Chicago, Ill.

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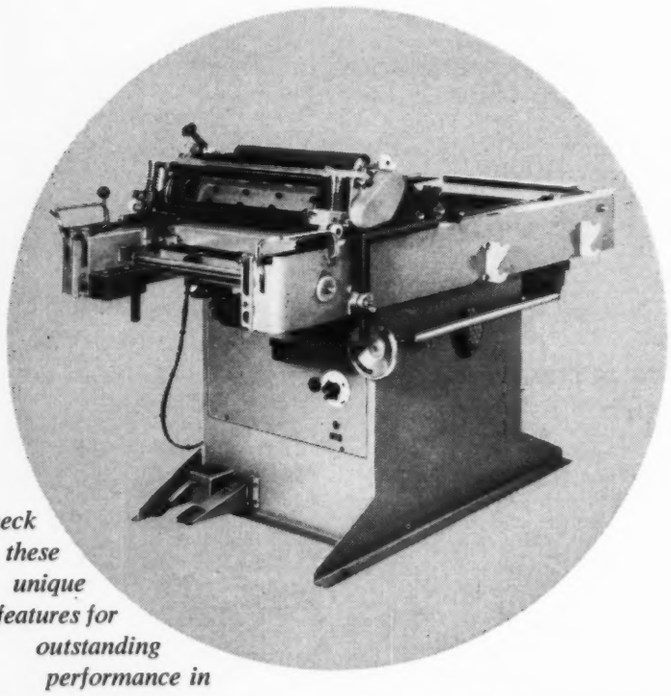

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BOOKS
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Recognizing Type Faces

An easy-to-use, single volume, type face reference book is *How to Recognize Type Faces*, by R. Randolph Karch. In this book are shown all the type faces sold in font or matrix form in the United States arranged in order of similarities in design.

Using the lowercase letters g, a, t, e, d and capitals E and G of each type face, and classifying them in serified, blackletter, stenciled, script, square serifed and sans serif design, the author has helped the printer to easily locate a specific type design.

Manufacturer's name and available point face sizes are given for each design, along with a complete list of design names in a cross-index.

A detailed study of comparisons and similarities in type face design, relative weights, size according to lower case height and width, color of type in mass, differences in type when printed on various kinds of paper or printed by letterpress, offset or gravure is included. Any questions asked about a type face can be answered readily in this practical publication.

How to Recognize Type Faces—By R. Randolph Karch. Hard bound in colored crash cloth. Size, 5½ in. by 8½ in.; 264 pages. Price, $6 per copy. Order from McKnight Publishing Co., Bloomington, Ill.

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The new Cutler-Hammer Counter-Stacker is flexible, accurate, and dependable. The papers-per-bundle "count" is adjustable to produce bundles with as few as 15 papers or as many as 100, and the size of the issue can vary from 12 pages to 128 pages.

The performance of the Counter-Stacker at the MILWAUKEE JOURNAL and the CHICAGO DAILY NEWS gives proof of its accuracy and dependability. Where the Counter-Stacker has been in daily operation there have been no production interruptions due to mechanical failures or "mis-counts".

Get all the facts today. See how the Cutler-Hammer Newspaper Counter-Stacker can cut your mail room handling time and costs. Write Dept. S277, Cutler-Hammer Inc., Milwaukee 1, Wisconsin.

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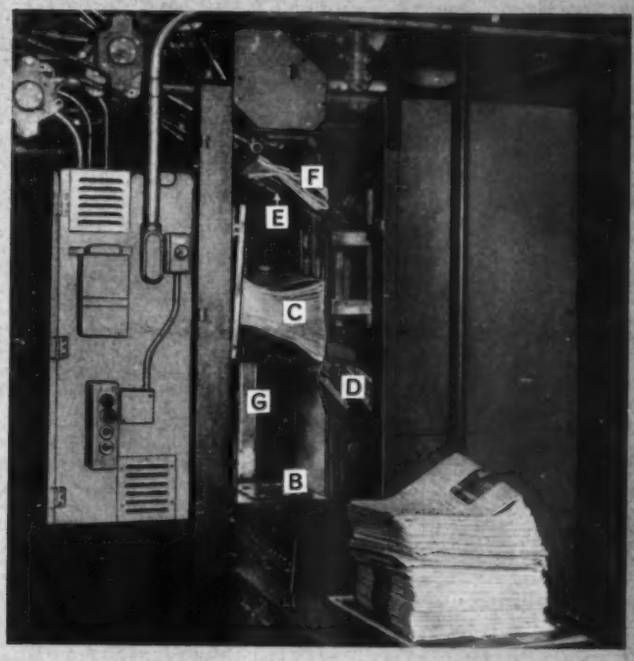
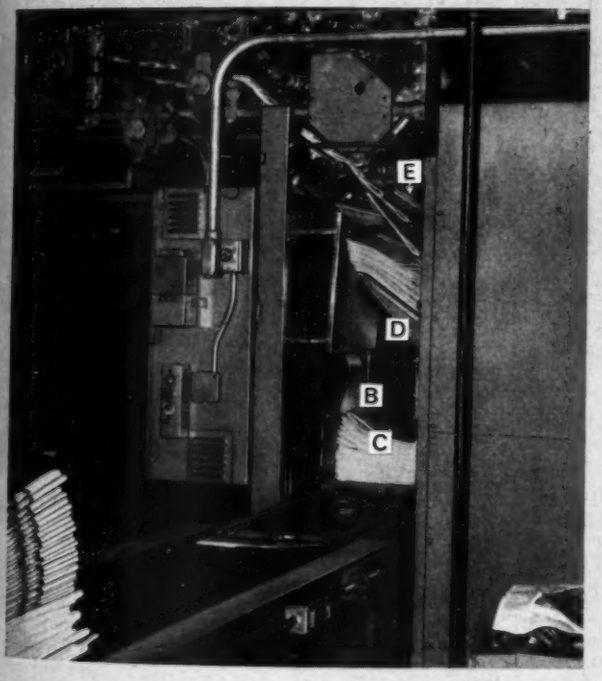
Now automatic newspaper counting and stacking . . .

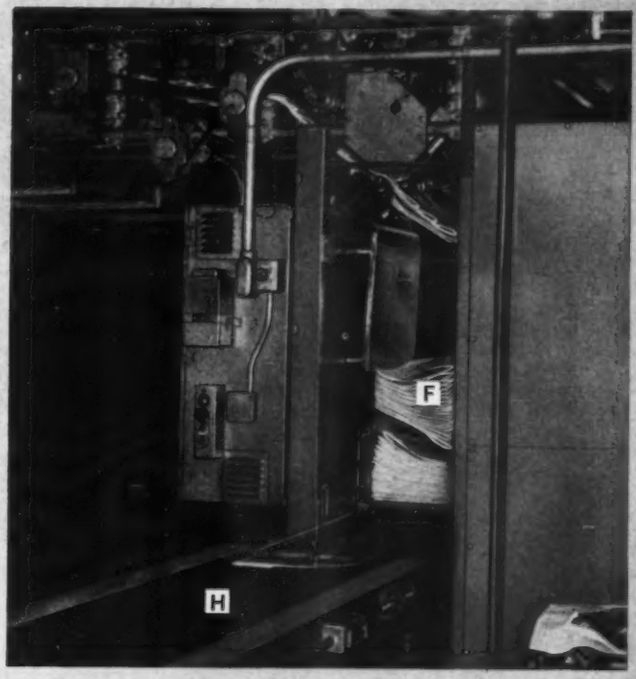
As a completed bundle of 50 newspapers A is ejected from the stacker basket B, the first 25 newspapers of the next bundle C are accumulated on the retractable collector D.



When the count reaches 25, the collector D retracts dropping the first 25 newspapers C into the stacker basket B. Simultaneously, the interceptor E begins collecting the second 25 newspapers F. Note the ejecting ram G at rest.



The collector D returns relieving the interceptor E. The stacker basket B rotates 180° to reverse the paper fold of the first 25 newspapers C to provide maximum bundle stability.



Again as the count reaches 25, the collector retracts dropping the second 25 newspapers F onto the first. The ejecting ram discharges the completed bundle onto the tying machine conveyor H to complete the cycle.

NEWS ITEMS

DIPCO Marketing Manager—Joseph A. Conlon has been named marketing manager of the Dayton Industrial Products Co., according to Robert G. Burson, vice president. DIPCO is a newly formed division of Dayton Rubber Co. Conlon will coordinate merchandising, distribution and sales programs for DIPCO's product line.

CONLON

RICHARDS

Excello Press Names Two—The Excello Press, Inc., recently announced the appointments of Carl W. Leisendahl as production and cost engineer, and Robert Christensen as assistant production and cost engineer.

IPI Appointments—C. Stanley Johnson and E. A. Green have been named vice presidents, Intrechemical Corporation, Printing Ink Division, it was announced by W. F. Cornell, division president. Other appointments announced are as follows: Arthur Legge succeeds Johnson as division vice president and southern district manager in Cincinnati; George Pharr has been named assistant district manager under Legge; and Herbert Gaetjens has been named assistant to the eastern district manager.

JOHNSON

GREEN

LEGGE

Newspaper Supply Company Appoints—Curtis Richards has been named sales and service manager for the Southwest Division, New England Newspaper Supply Co., it was announced by Gardener DeMallie, general manager. Richards is an active member of the Southern Newspaper Publishers Assoc., having served on the executive committee for its mechanical conferences, and has also served as pressroom panel chairman at American Newspaper Publishers Assoc. mechanical conferences.

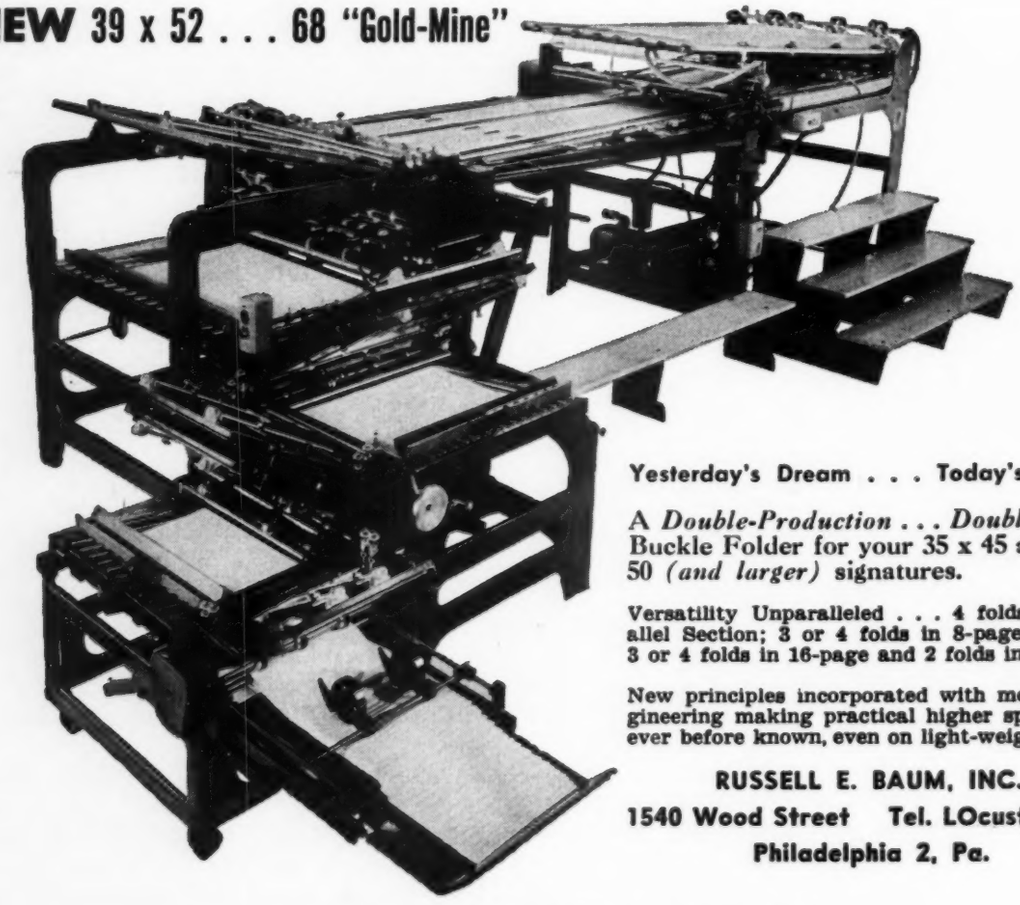
Hoe Company Appointment—William W. Henderson has been promoted to vice president of R. Hoe & Co., Inc. He will direct the firm's press sales. Henderson succeeds McHenry Browne who has resigned.

ITCA Executive Secretary—McKinley M. Luther has been named executive secretary of the International Typographic Composition Assoc., Inc., it was reported by Walter R. Adamson, president. Luther commenced his duties August 24 and will be available throughout the New York ITCA Convention to meet the membership. He succeeds W. E. Switzer recently resigned.

Chandler and Price Elects—The board of directors, Chandler and Price Co., elected Walter P. Moak president of the firm to succeed D. W. Frackelton, who died June 24. Formerly secretary and treasurer, Moak's association with the company extends over 22 years. Elected as vice presidents are J. W. Kirkpatrick and F. D.

(*Continued on Page* 16)

NEW 39 x 52 . . . 68 "Gold-Mine"



Yesterday's Dream . . . Today's Reality

A *Double-Production . . . Double Profit* Buckle Folder for your 35 x 45 and 38 x 50 *(and larger)* signatures.

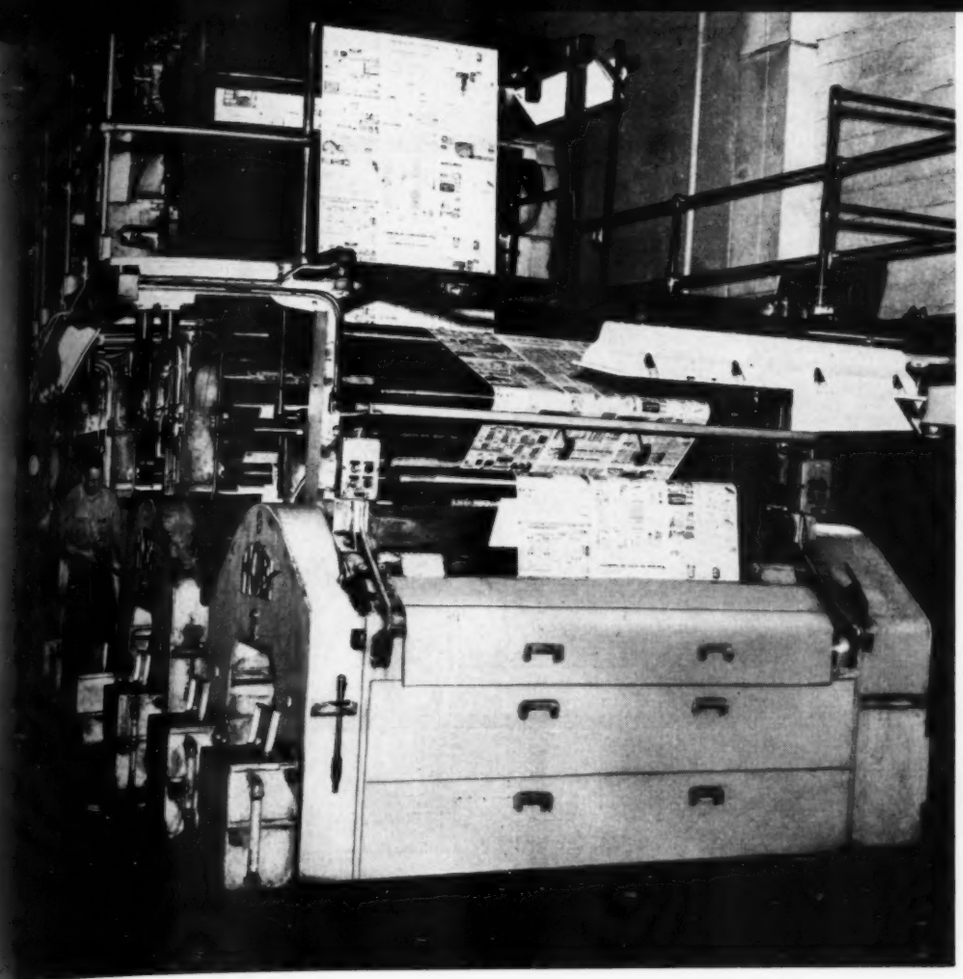
Versatility Unparalleled . . . 4 folds in Parallel Section; 3 or 4 folds in 8-page Section; 3 or 4 folds in 16-page and 2 folds in 32-page.

New principles incorporated with modern engineering making practical higher speed than ever before known, even on light-weight stock.

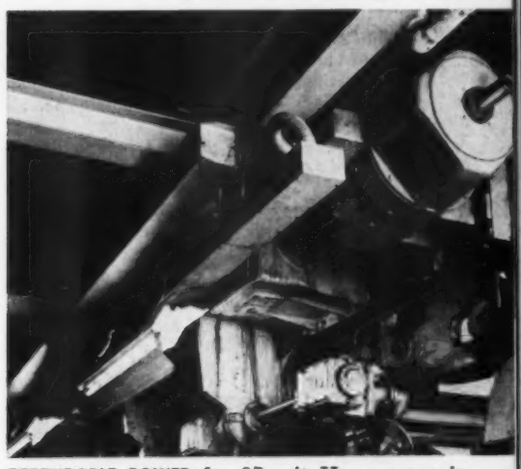
RUSSELL E. BAUM, INC.
1540 Wood Street Tel. LOcust 8-4470
Philadelphia 2, Pa.

For More Information Circle 18 on Reader Service Card

For More Information Circle 68 on Reader Service Card→



BOSTON GLOBE'S NEW HOME is a modern, two-story, air-conditioned plant with a 600-car parking lot and a cafeteria which serves full course meals around the clock.



DEPENDABLE POWER for 37-unit Hoe presses is supplied by rugged G-E Kinamatic® d-c motors. Unit-drives simplify and reduce maintenance, add operating flexibility.

BOSTON GLOBE'S FRANK FREITAS SAYS:

"The More We Use Our New General Electric Drives, the Better We Like Them"

The new *Boston Globe* plant is modern in every respect—from the strikingly clean lines of the exterior to the dependable General Electric d-c electronic drives which power the new 37-unit Hoe high-speed presses.

WHY WERE G-E DRIVES SELECTED? "After we had looked at press drives in various printing plants throughout the country," says Mr. Freitas, Mechanical Superintendent, "we were convinced that the G-E electronic drive would best suit our needs. We're more than pleased with the results. We've had no maintenance to speak of so far. And the unit-drive system and easy-to-operate control give us flexibility and fast, smooth operation—add a lot to our pressroom efficiency."

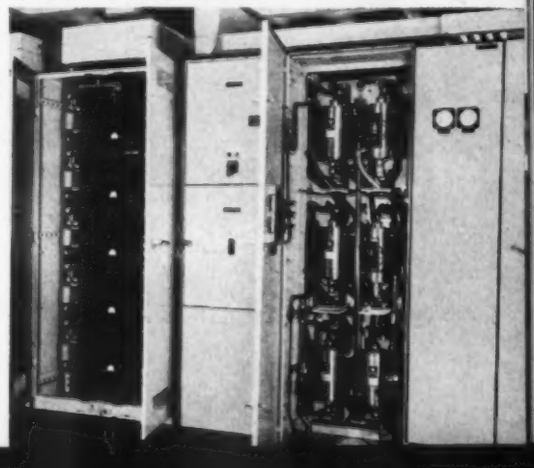
COMPLETE SYSTEM COORDINATION was furnished by a team of General Electric engineers familiar with the needs of the *Globe* and the newspaper industry, and factory engineers experienced in the design and application of printing press drives.

The *Boston Globe* joins more than 80 other major metropolitan newspapers who have chosen G-E d-c electronic drive systems for production reliability, operating flexibility, low maintenance and over-all high performance on more than 200 high-speed presses.

FOR COMPLETE INFORMATION on G-E equipment for the printing industry, contact your nearest General Electric Apparatus Sales Office. Or write to General Electric Co., Section 653-49, Schenectady 5, N. Y.

MECHANICAL SUPERINTENDENT FREITAS checks G-E press drive control including selector, circuit breaker, rectifier and magnetic panels.

RELIABLE G-E IGNITRON RECTIFIER TUBES (below right) require only periodic inspection. "Set and forget" selector panel permits flexible operation of press units.



Engineered Electrical Systems for Newspaper Plants

GENERAL ELECTRIC

Speed-Flex UNITS ARE BUILDING BLOCKS

FOR HIGH PRODUCTION PRINTING MACHINES!

From these units, literally dozens of kinds of high production presses can be built. Coupled together, the units may create a specialty press that can provide a monopoly on highly specialized jobs, while the same press may be capable of producing many standard commercial jobs.

Presses may include:

Offset printing units with the ultimate in fine ink distribution

Rubber plate printing units

Numbering and imprinting units, fully automatic or non-automatic

Punches which can produce a myriad of types of shapes and holes

Edge trimmers that can produce specially trimmed edges and tabs

Cross, rotary and jump perforating

Sheeting with pile or creeper delivery

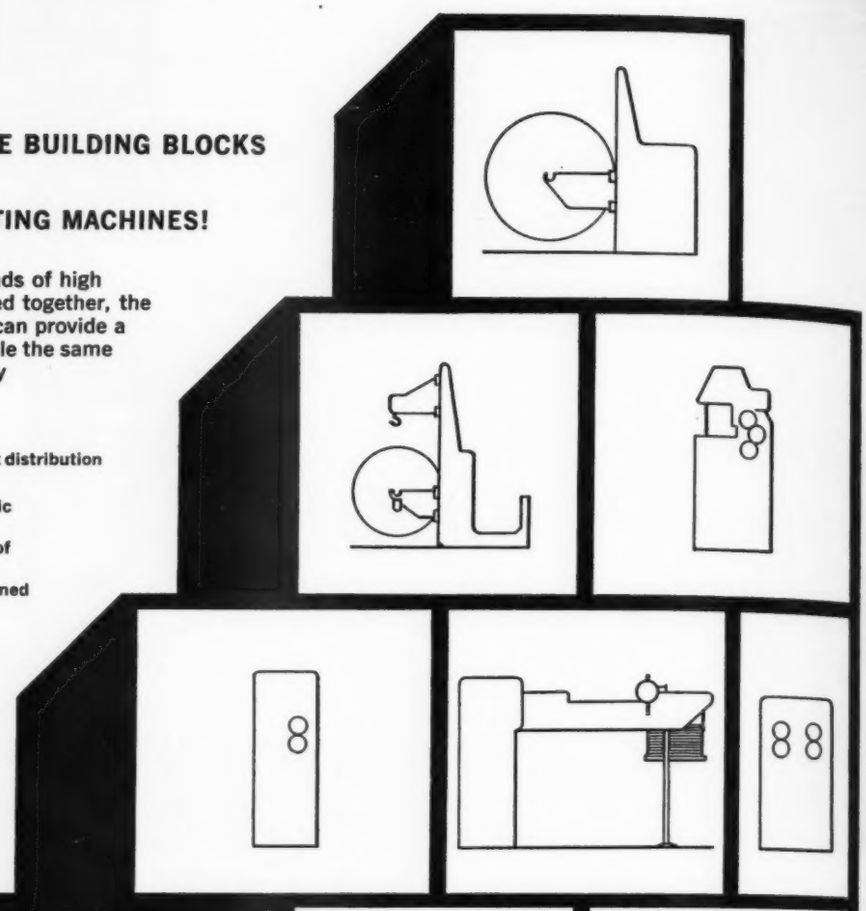
Rewinding

Zig-zag folding

All operations from a roll of paper to the finished jobs!

Speed-Flex presses are built in a number of cylinder circumferences and widths. Each Speed-Flex unit is the finest in its field.

Build your future with Speed-Flex building blocks! Call or write for full details.



WG GRAPHIC ARTS DIVISION

WESTERN GEAR CORPORATION

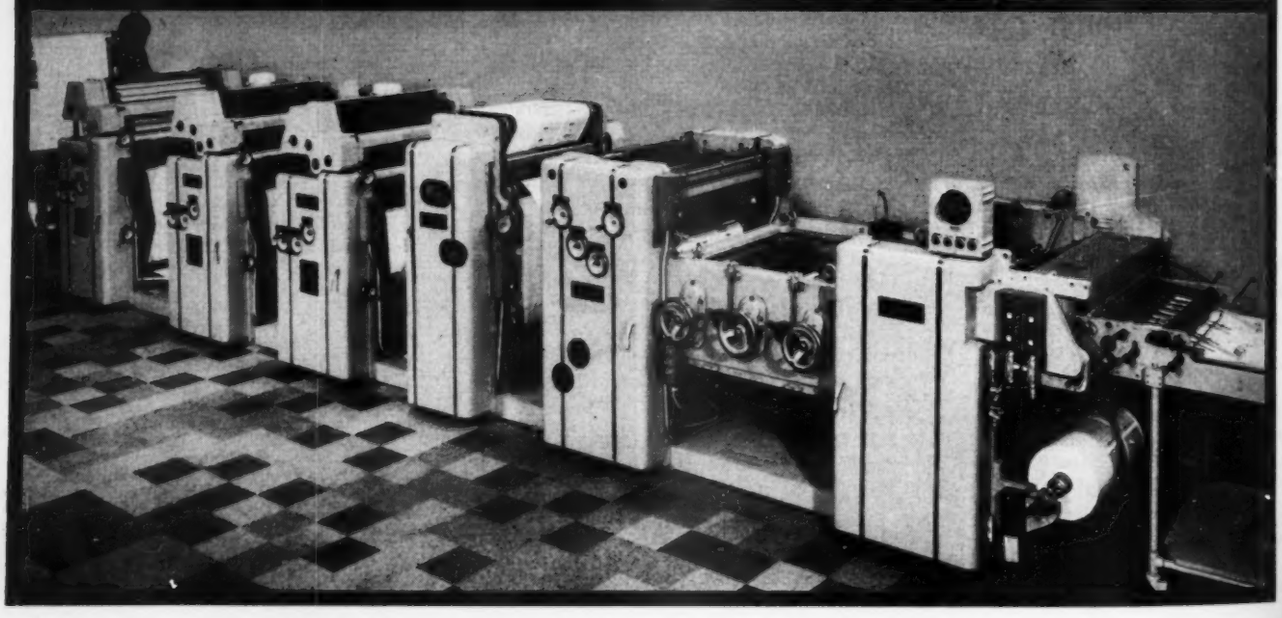
Orville Dutro & Son, Inc.

PRINTING PRESS SALES AND SERVICE

117 W. 9th St., Los Angeles 15, California MAdison 7-8556

New York, N. Y. 1140 Broadway MUrray Hill 3-1253

Chicago, Ill. 7 S. Dearborn St. RAndolph 6-7977



See us at the 7th Graphic Arts Exposition, Booths 137, 139 and 140

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Charm your customers with fine printing on

Hammermill Opaque

When you want to print deep, rich colors—show subtle details—Hammermill Opaque is the choice. Its distinctive radiant whiteness makes product illustrations glow with life. Hammermill Opaque's higher opacity reduces show-through, too. How does it handle black and white? Turn the page to see.

美しい印刷にはハンマーミル オペークをお使い下さい *

HAMMERMILL OPAQUE is outstandingly clean. It reflects the quality of your products—makes customers sit up and take notice. You can get new brighter white Hammermill Opaque in English, Pearl, Laurel and Vellum finishes. Firm, level printing surface and built-in moisture content help Hammermill Opaque print as well as it looks. This specimen printed by offset on substance 70, Vellum finish on a 42 x 58 four-color press. Sheet size 39¾ x 52, 16 up. Speed 3000 an hour. Copperized aluminium plates. Colors printed yellow, red, blue, black.

HAMMERMILL OPAQUE

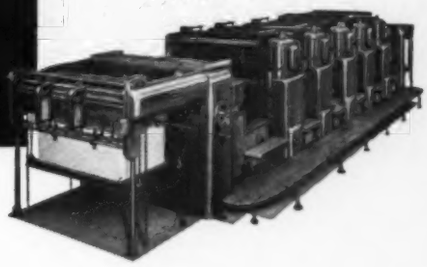
Manufactured by HAMMERMILL PAPER COMPANY · Erie, Pennsylvania

*In plain English: He who wants beautiful printing wants Hammermill Opaque

The Miehle

61 AND 76

LETTERPRESS ROTARIES



Separate impression cylinders SAVE TIME IN PLATING AND MAKEREADY...ASSURE FINE QUALITY AND TOP PRODUCTION

In the big, modern 61 and 76 Rotaries, *separate impression cylinders* are one of the main productive advantages of Miehle's Unit Construction design. With individual plate and impression cylinders for each color unit, plating and makeready time are "cut to the bone." Each plate cylinder is declutchable and can be turned free from the press permitting several units to be plated-up at the same time. Built-in gauges aid and assure accurate plate positioning.

Separate impression cylinders provide complete freedom of makeready. No need to purchase costly, high precision plates; pressmen can follow standard flatbed practice of spotting up on an overlay sheet placed under the tympan. The narrow line of impression makes it easy to attain fine quality at the highest speeds. Whatever the field—book, label, carton, publication, commercial—you'll find the Miehle 61 and 76 Rotaries...saving time, reducing operating costs, while stepping up volume and profits.

THE MIEHLE COMPANY

DIVISION OF MIEHLE-GOSS-DEXTER, INC.

CHICAGO 8, ILLINOIS

News Items

(Continued from Page 10)

McLaughlin. Arthur V. Hook, formerly executive vice president, Sterling and Welch Co., Kent H. Smith, acting president, Case Institute of Technology, Moak, McLaughlin and Kirkpatrick are the new members of the board.

Harris-Seybold Names Two Managers—The promotions of Eldren P. Nalley and Lloyd G. Butler to assistant general sales managers, Harris-Seybold Company, Div. Harris-Intertype Corp., was announced by

NALLEY

BUTLER

C. A. Loefgren, general sales manager. Nalley will direct sales-service operations in Philadelphia, Boston, Atlanta, Washington, D. C. and Canada. Butler will be responsible for Los Angeles, San Francisco, Dallas, St. Louis and Minneapolis sales-service districts, and for the general sales office in Cleveland. Nalley joined Harris-Seybold in 1948 and Butler joined in 1949.

Pittsburgh Press Appoints—Henry Garland has been named production manager, Pittsburgh *Press*, to succeed Harold J. Mintun who was recently promoted assistant business manager. Garland is a former member of the Mechanical Committee, American Newspaper Publishers Assoc., and helped select and standardize the basic colors now used in newspaper advertising. He was previously production manager, Pittsburgh *Post-Gazette*.

New York Firm to Process Du Pont Plates—Polyplate Corporation has been formed as a separate service division of the Quality Photo Engraving Co., New York City, and has been selected by Du Pont to process its Dycril photopolymer plates. Ralph A. Santulli has been appointed vice president in charge of sales and service functions for the division.

Standard Packaging Promotes Two — The appointment of Charles W. Small to customer service superintendent, and Edward A. Brooks, jr. to production control supervisor, Chemical Fine Paper & Board, Div. Standard Packaging Corp., has been announced by G. A. Littlefield, division manager.

GARLAND

DAMON

Damon Joins Tirfing—Everett A. Damon has been appointed regional manager for Tirfing Printing Machinery, Inc., it was reported by Alfred Heydenreich, vice president. Damon will direct sales in the New York metropolitan area. He has been associated with the printing industry for over 25 years.

Lewis Geisert Dies—Lewis Geisert, 87, retired specialist on typesetting machinery and composing room planning for newspapers, died Aug. 2 at his home, Souderton, Pa. Well known in the Graphic Arts industry, he had served as an executive of the Mergenthaler Linotype Co. and the Intertype Company.

Beall Firm Changes Control—Jack Beall Vertical Service, Co. announces a change of control. It is now Jack Beall Vertical Service, Inc. with Edward J. Stephens, president and Jack Beall, vice president.

(*Continued on Page 22*)

CROSFIELD REGISTER CONTROLS THINK AHEAD

GET MORE PEAK QUALITY — MORE PRODUCTIVE TIME — SEE STARTLING REDUCTIONS IN WASTE WITH THESE CROSFIELD REGISTER CONTROLS

By measuring both errors and rates of change of errors, Crosfield Controls predict mis-register in advance and correct accordingly. They eliminate overcorrecting, undercorrecting and hunting — even during speed changes and pasting.

CROSFIELD PREDICTOR CONTROLS

- Color Register
- Web Sidelay
- Folders
- Sheeters
- Die Cutters
- Web Inserters

Write for the Crosfield brochure, today

CROSFIELD ELECTRONICS, INC.
47 New York Ave. New Cassel-Westbury, N. Y.

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For More Information Circle 103 on Reader Service Card→

Announcing the New

46" 52" 55"

LAWSON PACEMAKER

Hydraulic Clamp Cutters

Nearly 20% faster and heavier than any other guillotine paper cutters in their size range!

50 stroke-a-minute knife speed for greater daily production of exceptionally accurate cut work is just one of the many important advantages of these *new* Lawson Pacemaker Cutters. All the proven advances of the larger Pacemakers are included for the first time in cutters of this size...double crank two-end knife pull...3-point knife bar support... rear table slot-closing device...optional adjustable flexible Contour Clamp and .002" Electronic Spacer accuracy.

Ask for the new 16-page brochure describing the complete Pacemaker line...46", 52", 55", 60", 66", 69".

THE LAWSON COMPANY

Division of Miehle • Goss • Dexter, Inc.
Chicago 8, Illinois

MIGD

KENRO "VERTICAL
Shoots up to 18" x 24
the four-up camera

Designed by Bruce Kamp Associates

All new from Kenro

a complete line of vertical cameras

For More Information Circle 97 on Reader Service Card

KENRO "VERTICAL 18"
Shoots up to 14" x 18" . . .
the two-up camera

KENRO "VERTICAL 14" COMPANION
Shoots up to 11" x 14" . . . the
photocopier and duplicator companion

The "Vertical 18" camera, pioneered by Kenro has been making graphic arts history. Now there is a Kenro vertical camera for all platemaking and photocopying requirements. The "Vertical 24" can shoot a full-size newspaper page or 8½" x 11" copy four-up with bleed. The well-known "Vertical 18" has been completely redesigned for even more versatility. The "Vertical 14" is the perfect companion for offset duplicators and new methods of photocopying now being introduced.

These beautiful new cameras are as modern in function as they are in design. They are engineered from the inside out for versatility, accuracy, ruggedness and ease of operation. New lens turrets, larger, hold-open copyboards, improved lighting, interchangeable heads for prismatic, film, xerographic and other applications are but a few of the many new features. Write for details or see your Kenro dealer.

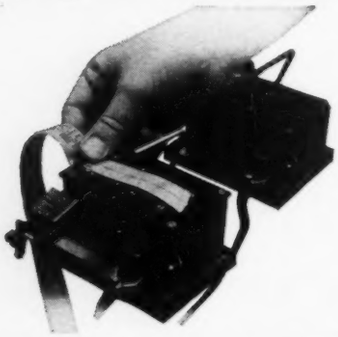
KENRO GRAPHICS, INC. Dept.G-9,25 Commerce Street, Chatham, New Jersey

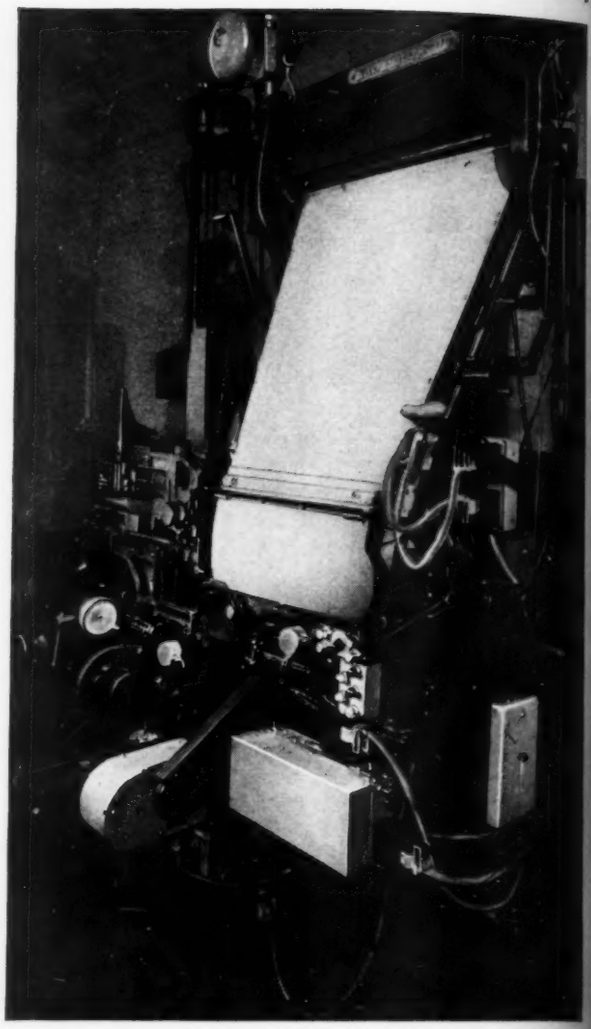
Introduced at the Graphic Arts Exposition . . . see them at the National Business Show

...from tape to type in a twinkle!

Fewer Linecasters do more work!

New RCA Electro-Typesetters set type faster with greater accuracy





Linecasters equipped with tape-operated RCA ETS units automatically set up to 540 characters per minute, permitting fewer machines to do more work.

This remarkable new system for automating the linecasting operation by-passes the entire keyboard assembly, and actuates the escapement verges directly by means of solenoids connected to each verge in the magazine of the typesetter.

Reliable RCA Electro-Typesetters eliminate the inaccuracies which stem from failures in the keyboard mechanism and provide true sequential dropping of mats from the magazines at high speeds.

The ETS equipment can be installed without a keyboard assembly on the linecaster. Or, if a combined automatic and manual operation is desired, this can be accomplished by a simple switching arrangement.

These Outstanding Advantages:

- ★ **High-speed—two to three times faster than conventional typesetting methods.**
- ★ **No keyboard—actuates escapement verge directly.**
- ★ **Fewer machines do more work—linecasting machines are able to work at rated capacity.**
- ★ **Permits better scheduling of work load. Later deadlines.**
- ★ **No tape in composing room. Linecasters are remotely operated.**
- ★ **Economical—saves floor space and maintenance.**
- ★ **Handles 6-unit code perforated tape.**

Get complete details on the time and money saving advantages of RCA Electro-Typesetters. Send for new descriptive brochure or ask for RCA Newspaper Automation representative to call. Address RCA, Dept. Y-343, 12605 Arnold Avenue, Detroit 39, Mich.

RADIO CORPORATION of AMERICA

INDUSTRIAL AND AUTOMATION DIVISION
DETROIT, MICHIGAN

® Tmk(s)

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For More Information Circle 96 on Reader Service Card→

LOOK TO THIS LABEL FOR

BEST RESULTS WITH

Now you can offer top-quality letterpress color printing with a minimum ink inventory! Speed King's 18 popular colors and black are all you need for nine out of ten jobs, yet they intermix perfectly when the customer demands a special color. Your nearest IPI branch has Speed King in handy 1 and 5 lb. cans . . . ready to do your presses proud!

IPI, IC and Speed King are trademarks of Interchemical Corporation

INTERCHEMICAL CORPORATION • DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.

anyway—

you LOOK at it...

You can't "monkey" with customer requirements — use L. L. Brown's famous record papers and you'll *both* be happy.

LINENS, LEDGERS, BONDS and BRISTOLS 50% to extra No. 1—100% cotton fiber content.

"The quality which has earned its reputation"

BETTER COTTON FIBER PAPERS

L. L. BROWN PAPER COMPANY

ADAMS, MASSACHUSETTS

Circle 24 on Reader Service Card

News Items

(Continued from Page 16)

Stafford Rejoins Harris-Seybold—Vincent R. Stafford has rejoined Harris-Seybold Company, Div. Harris-Intertype Corporation, in the newly created position of co-ordinator of new products, Cleveland division. Stafford, who first joined Harris-Seybold in 1952, helped introduce the Harris metal decorating press line and served as a product manager for Harris-Cottrell web offset presses.

New York Printing Firms Merge—Read Printing Co., Inc., and Guide-Kalkhoff-Burr, Inc. have completed an arrangement of joint ownership, it was announced by Thomas W. Mack, president, Read, and Charles E. Schatvet, president, G-K-B. Facilities of the two companies, consisting of combination letterpress and offset lithography in both cases, will be used interchangeably. In addition, the G-K-B plant is undergoing an expansion program.

Consolidated Executive Appointment—The promotion of Harvey Gelber as vice president in charge of Eastern sales, Consolidated Intl. Equipment and Supply Co., was announced by Benjamin Sugarman, president.

GELBER

FERGUSON

Reynolds' Division Manager—W. K. Allen Ferguson has been appointed general manager of the light metals manufacturing division, Reynolds Metals Co., according to W. Monroe Wells, vice president of operations. In his new position, Ferguson will direct all operations of the foil and printing divisions. He was formerly manager of the Reynolds' printing plant in Harrison, N. J. and he also established the company's St. Louis printing plant.

STAFFORD

REID

GPI Builds Cincinnati Plant—General Printing Ink Co., Div. Sun Chemical Corp., has broken ground for a new ink plant on Glendale Milford Road, Cincinnati. Completion of the 11,000 sq. ft. plant is expected by November 1. Robert W. Reid has been named general manager. He will be assisted by Lyle Ranney, in charge of the plant and laboratory, and William Kling, who will devote most of his time to sales activities.

Made Composing Supt.—On July 28, George Story was appointed composing room superintendent of the Omaha (Neb.) *World-Herald*. He came to that paper from the Cleveland (O.) *Plain Dealer*. Prior to that, he was for two years composing room superintendent of the Middletown (Conn.) *Press*. During his high school years he spent two summers studying printing at Kansas State Teachers College, Pittsburg, Kans. Early this year he completed the course at the Intl. Typographical Union's New Process School in Indianapolis, Ind.

MLCo Press Div. Sales Manager—William K. Maxon has been named sales manager of the new press division of Mergenthaler Linotype Co. He will be in charge of sales activities for the Mergenthaler 22, 31 and 38 letterpresses to be introduced this fall. Maxon previously was sales engineer with the flexographic and gravure division of Kidder Press Co., Dover, N. H., and was also general sales manager with Heidelberg Eastern.

Polychrome Opens Four Offices—The opening of four direct sales offices has been announced by James E. Epperson, vice president, Polychrome Corporation. New offices and managers are: Syracuse, N. Y., Harry W. Koon; Columbus, O., John J. Carro; Akron, O. William J.

(*Continued on Page 26*)

Didde-Glaser Appoints — Newly promoted sales and service representatives for regional offices of Didde-Glaser Incorporated are as follows: Arnold Blahut, service supervisor, main office, Emporia, Kan.; Donald Blahut, western regional offices, Chicago and Los Angeles; Irwin N. Goldfinger, eastern regional office, New York City. Also, Charles Clark, southwestern; S. B. Joseph. northeastern; George McWilliams, central eastern, and Harold Wagar, will serve the southeastern area.

A. BLAHUT

D. BLAHUT

GOLDFINGER

Painting on loan from artist Rudolph Pen, Chicago

What the brush can do we can do better!

Well, perhaps not *better!* But the skill and knowhow of printing and lithography have been taking giant strides. We've narrowed the gap between what the camera's lens captures and what presses can produce. Ideal has been a leader in this gap-narrowing.

But you can't do it on conversation or claims. Quality in printing is basic. You start with a quality subject such as this vivid work by Chicago's brilliant Rudolph Pen. You work with quality craftsmen . . . men who believe that nothing is trivial, nothing impossible.

You insist upon quality tools. And especially QUALITY ROLLERS. Ideal is proud of the excellence and performance of the rollers it produces. And proud of the quality *strides* that today enable printing and lithography to produce artwork in every medium at its excellent best.

IDEAL ROLLER & MANUFACTURING CO.

CHICAGO, ILLINOIS 2512 West 24th Street — HUNTINGTON PARK, CAL. 6069 Maywood Avenue
LONG ISLAND CITY, N. Y. 21-24 Thirty Ninth Avenue — CHAMBLEE, GEORGIA 5238 Peachtree Road, NE.

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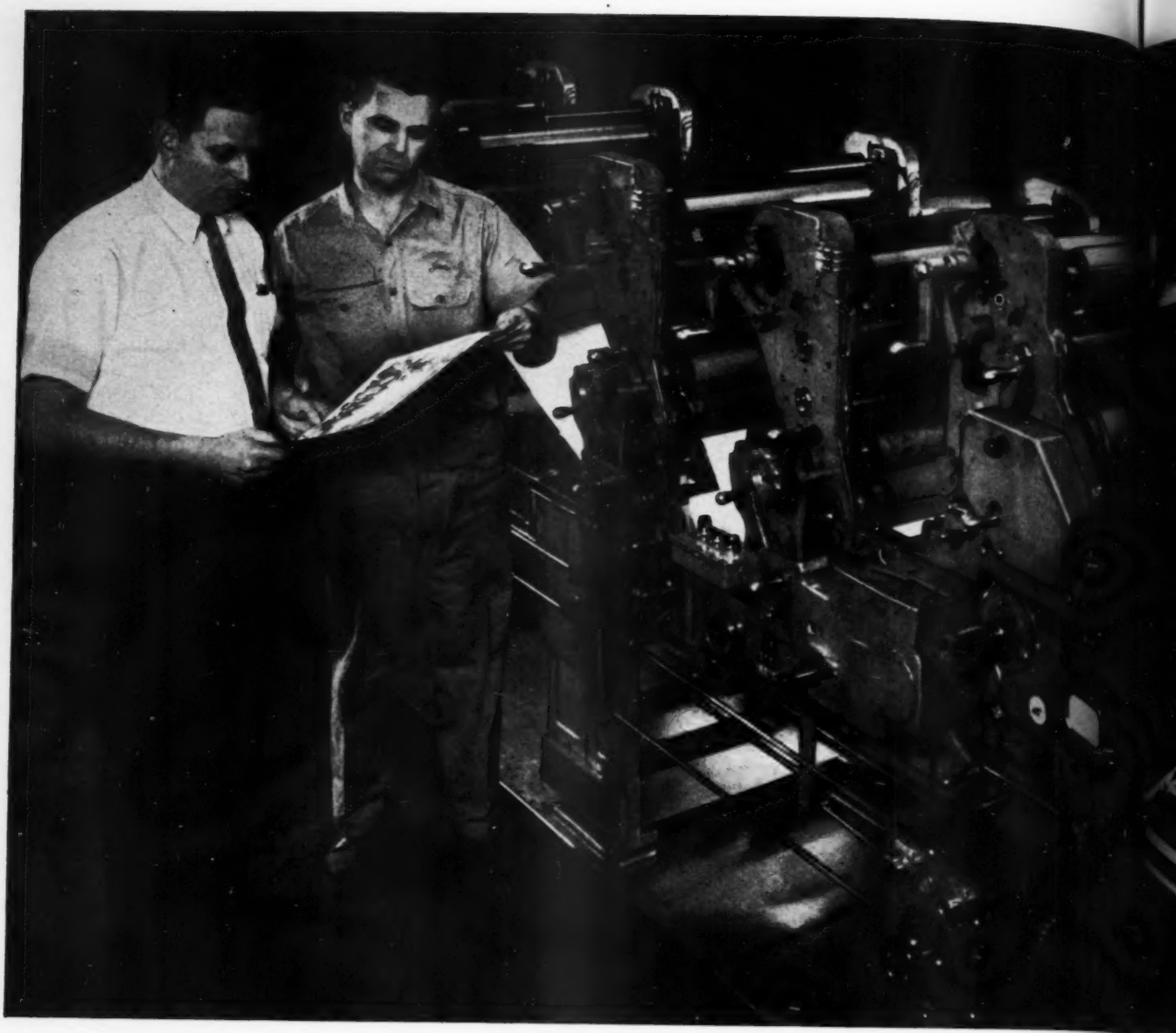


"They thought I was daring when

A few of the jobs the Green Hornet does for Web Color Process Corp.

"We're trying to stay ahead of the trend. That's why we put in a Four-Color ATF Green Hornet Press," says Marvin Radlauer, President of Web Color Process Corp., New York City.

"Some of my printer friends thought we were pretty daring when we ordered one of the first four-color 'Hornets.' They wondered if we'd be able to keep it busy. But look at it. We're running two shifts—overtime on both. And there's a backlog of jobs waiting.

"First we had to go out and get business for the 'Hornet.' But, after the word and samples got around, the jobs started coming to us."

The compact Four-Color Green Hornet fits easily into the floor plan of Web Color's well-known operation on Varick Street.

Quality and Quantity

Web Color uses the Green Hornet for jobs demanding both quality and quantity. On one job, for example, record club letters were turned out at a rate of 44,000 an hour! The entire print order was 1,200,000; and Mr. Radlauer's man printed two-up.

Mr. Radlauer asked ATF to install a special imprinter. Perfectly synchronized to the overall operation, this imprinter turns out 44,000 "written" executive signatures an hour in a fifth color, as the final printing step. On this job, the press delivered sheets finished on three sides—requiring only one more trim before folding.

Many uses for Green Hornet

There are many ways to use the four-color Green Hornet. It prints an 11" x 17" form, four colors on one side, two colors on each side, or one color on one side and three on the other.

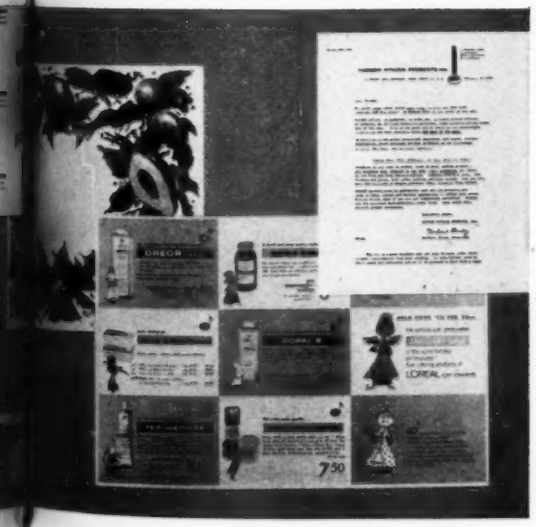
As with the two-color "Hornet," the four-color prints from *rolls* of paper—from lightest bond to 120-lb. offset. When printing on one side only, stock up to .007" thick may be used because the web of paper travels straight through the printing units.

Plate costs are less than for a sheet-fed press of comparable production capacity. It is easy to bleed a full 11" x 17" form or two 8½" x 11" jobs. The ATF Green Hornet faithfully reproduces halftones, Ben Days, line art and type.

Register is adjusted while the press is running...a new-style wedge system makes plate lockup much faster...printing units feature inking systems complete with drop ink fountain blade for easy cleaning... you can perforate or slit, the running way of the web, on the "Hornet." It also features stream delivery and a non-stop unloading system.

For further information and specifications, write ATF.

en bought a Four-color Green Hornet"



says Marvin Radlauer, President,
Web Color Process Corp., 131 Varick Street,
New York City, New York

ATF

American Type Founders • 200 Elmora Ave., Elizabeth, N. J.

Type used in this ad: Franklin Gothic Cond.; Franklin Gothic Extra Cond.; Century Expanded; News Gothic Cond.

For More Information Circle 11 on Reader Service Card

News Items

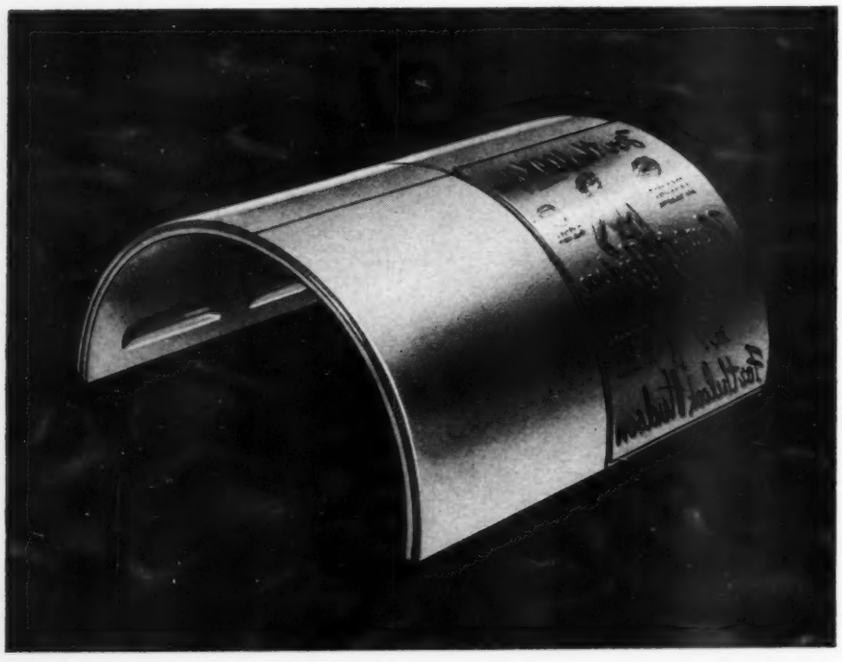
(Continued from Page 22)

Adams; and Los Angeles, William Doesher, western division manager for Polychrome. Joining the firm in the Los Angeles office will be Max Parker and Irving Goff.

Bloom Joins Perfection Type—The appointment of Ralph C. Bloom as sales representative for Perfection Type, Inc., Equipment Division, St. Paul, was announced by Gale Libby, president. Bloom will make his headquarters in Minnesota, also serving S. Dakota and western Iowa.

ATF Names Sales Representatives—Daniel D. Brown and William Van Luit have joined American Type Founders Co. as sales representatives. Brown will represent ATF in Maryland and Delaware with Baltimore as his base of operations. Van Luit will serve the city of Cleveland and make his headquarters in Cleveland.

Darby Executives Complete Courses — Three executives of Darby Printing, Washington, D. C., have received diplomas for completion of the American Management Assoc.'s Management Course. Renaldo De Santo, letterpress superintendent; O. Edward Johnson, account executive, and C. Thomas Mitchell, lithograph superintendent at Darby, attended the AMA School at Saranac Lake, N. Y.



Let us tell you more about the Advantages of Using Magplate Products

PRECISION MAGNESIUM NEWSPAPER SADDLES make possible direct printing from the original engraving. The many advantages include perfect color register, better impressions on newsprint, high fidelity.

PRECISION MAGPLATE PHOTOENGRAVER'S METAL is accurate in gage thickness ±.0005. Very hard surface. Close tolerance eliminates make ready for plate level inaccuracies, reducing press down-time.

PRECISION BACK-UP PLATE—very light weight—the perfect base for electros, rubber plates, engravings, plastic plates.

PRECISION CURVING OR MAGPLATE. Extremely accurate. We can curve before or after etching to any diameter, plate thickness.

CHROME PLATING OR MAGPLATE will give you plate protection and longer press runs.

M-60-1

Send for Magplate folders with more facts about these products and services.

MAGPLATE DIVISION
Brooks & Perkins, Inc.
1968 West Fort St.
Detroit 16, Michigan

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MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assoc. — 1959 Conv., Hotel Statler-Hilton, Dallas, Tex., Oct. 19-21. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA Mechanical Conf.—1960 Conf., Hotel Americana, Miami, Fla., June 19-22. Mgr. Richard L. Lewis, ANPA Mechanical Dept., 750 Third Ave., New York 17, N. Y.

Book Manufacturers' Institute — 1959 Conf., Hotel Greenbrier, White Sulphur Springs, W. Va., Oct. 21-24. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36, N. Y.

Educational Graphic Arts Exposition—Coliseum, New York, N. Y., Sept. 6-12, 1959. Gen. Mgr. A. E. Giegengack, 5600 Massachusetts Ave., N.W., Washington 16, D. C.

Graphic Arts Assoc. Executives — 1959 Conv., Hotel Plaza, New York, N. Y., Sept. 4-5. Secy.-Treas. William H. Gary, Managing Director, Printing Industry of Twin Cities, Inc., 2645 University Ave., St. Paul 14, Minn.

Gravure Technical Assoc. — 1960 Conv., Hotel Commodore, New York, N. Y., Mar. 2-4. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Mechanical Conf.—1960 Conf., Hotel Schroeder, Milwaukee, Wis., Jan. 17-19. Secy.-Treas. Don Clark, Stereotype Supt., Grand Rapids (Mich.) *Press.*

Illinois Newspaper Mechanical Conf.—1959 Conf., Hotel Perre-Marquette, Peoria, Ill. Oct. 10-11. Secy-Treas. Arthur Kramer, Joliet (Ill.) Harold-News.

Intl. Assoc. Electrotypers & Stereotypers—1959 Conf., Hotel Biltmore, New York, N. Y. Sept. 7-10. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14, Ohio.

Fifth District Craftsmen's Conf.—Secy.-Treas. George W. Thompson, Toledo Colortype Co., 1711 Jefferson Ave., Toledo, O.

Flexographic Technical Assoc. — Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36, N. Y.

Intl. Assoc. of Printing House Craftsmen—1959 Conv., Hotel Statler, New York, N. Y., Sept. 5-9. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19, O.

Intl. Graphic Arts Education Assoc. — Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N. W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1959 Conv., Hotel Statler, New York, N. Y., Sept. 4-5. Secy. Charles S. Tompkins, Tompkins Printing Equipment Co., 1040 W. Grand Blvd., Detroit 8.

Intl. Typographic Composition Assoc.—1959 Conv., Hotel Park Sheraton, New

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York, N. Y. Sept. 9-12. Exec. Secy. W. E. Switzer, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Newspaper Mechanical Conf.—Secy.-Treas. Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald.*

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Gen. Mgr., Larry Miller, Kansas Press Assoc., 701 Jackson St., Topeka, Kans. Missouri Secy-Treas. William A. Bray, Missouri Press Assoc., 115 Walter Williams Hall, Columbia, Mo.

Lithographers and Printers National Assoc.—1960 Conv., Hotel Boca Raton, Boca Raton, Fla., Apr. 24-30. Exec. Dir. Oscar Whitehouse, 1025 Connecticut Ave., N.W., Washington 6, D. C.

National Assoc. of Litho Clubs, Inc.—1960 Conv., Hotel Statler Hilton, Boston, Mass., May 19-21. Exec. Secy. Raymond E. Geegh, 1915-33rd St., S. E., Washington 20, D. C.

National Assoc. of Photo-Lithographers—1959 Conv., Hotel Muehlebach, Kansas City, Mo., Nov. 18-21. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, N. Y.

National Paper Trade Assoc.—1960 Conf., Hotel Waldorf Astoria, New York, N. Y., March 27-30. Exec. Secy. O. Glenn Leach, 220 E. 42nd St., New York 17, N. Y.

National Printing Equipment Assoc., Inc.—1959 Conf., Hotel Waldorf Astoria, New York, N. Y., Sept. 9-10. Secy. James E. Bennet, 140 Nassau St., New York 38, N. Y.

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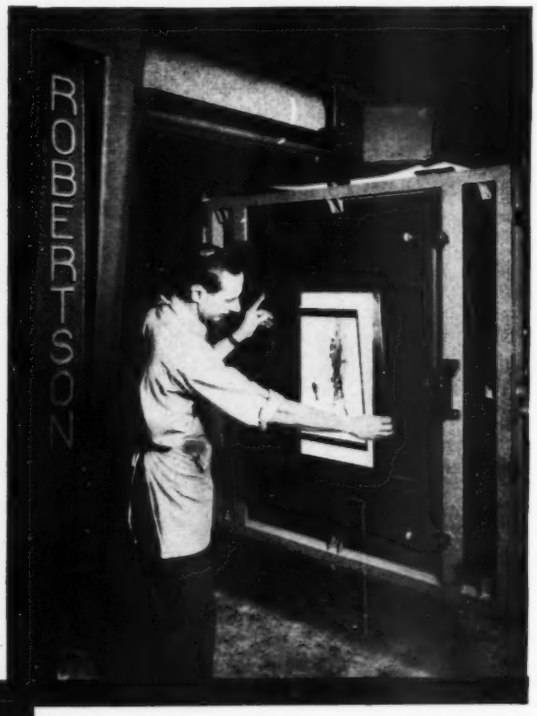

"Optimum maneuverability, positive controls, and easy, accurate operation of our Robertsons, guarantee accurate color separation, registration and re-registration. The construction of the vacuum film holder speeds up operation and assures image accuracy and registration; and scale markings permit almost instant film positioning. After copy is placed and lens aperture set, electronic controls completely eliminate time consuming back and forth operator movement."

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Give The UNITED Way

National Safety Council Printing and Publishing Section—1959 Meeting, Hotel Conrad Hilton, Chicago, Oct. 20-24. Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Newspaper Mechanical Conf.—1959 Conf., Hotel Statler-Hilton, Boston, Mass., Oct. 17-18. Secy.-Treas. Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

Newspaper ROP Color Conf. — Secy. Arthur Brashears, American Assoc. of Newspaper Representatives, 141 E. 44th St., New York, N. Y.

Northwest Mechanical Conf.—1960 Conf., Hotel Leamington, Minneapolis, Feb. 27-29. Secy.-Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis, Minn.

Pacific Newspaper Mechanical Conf.—1959 Conf., Hotel U. S. Grant, San Diego, Calif. Sept. 25-27. Secy. Fred Moyer, Sr., 6630 Mayflower Ave, Bell, Calif.

Packaging Institute Assoc.—1959 Meeting, Hotel Statler, New York, N. Y., Nov. 16-18. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17, N. Y.

Printing Industry of America—1959 Conv., Hotel Waldorf-Astoria, New York, N. Y., Sept. 6-10. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council—1960 Conf. Hotel Dayton-Biltmore, Dayton, O., May 23-25. Managing Dir. Robert E. Rossell, 5728 Connecticut Ave. N.W., Washington 15, D.C.

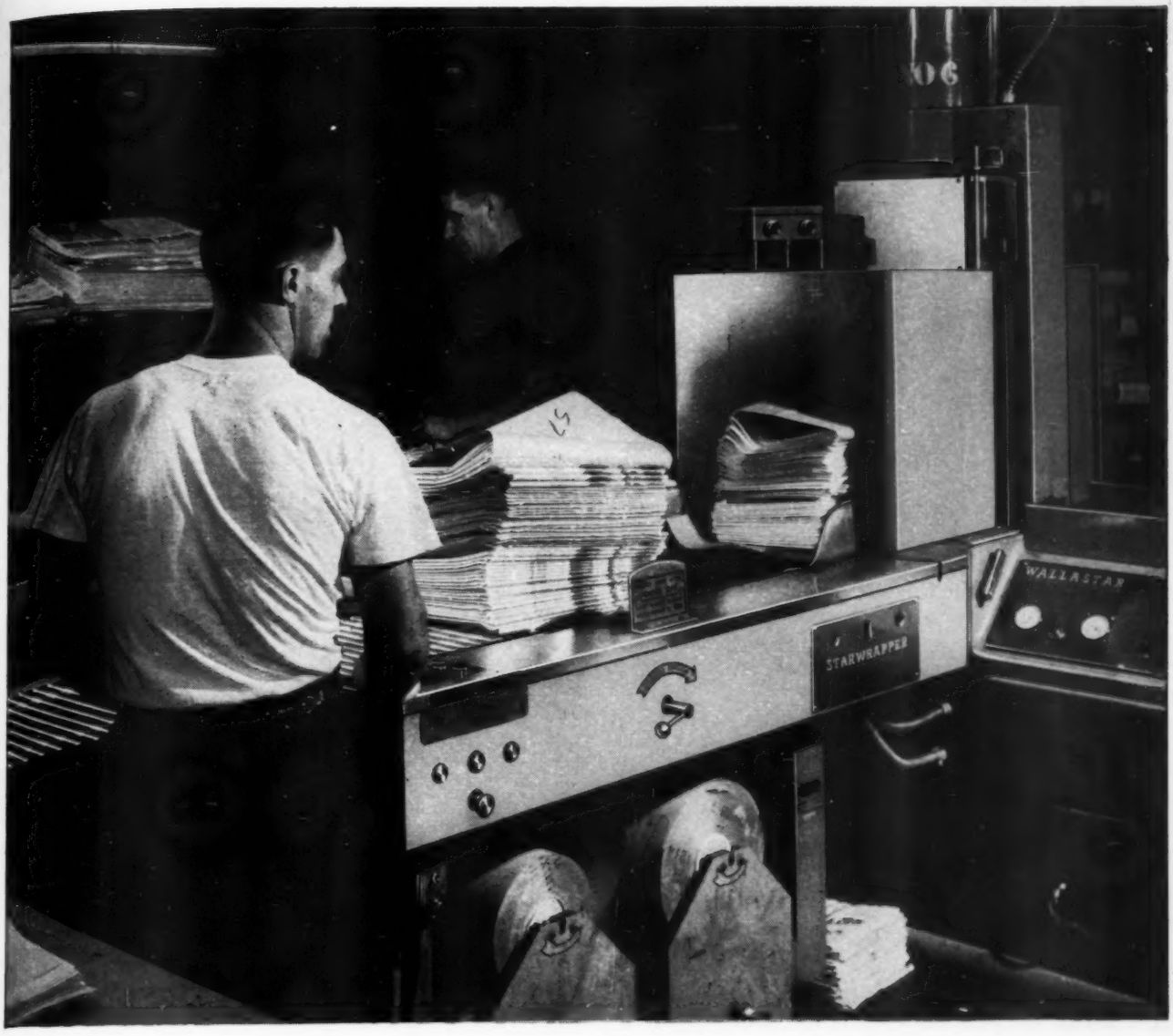
Screen Process Printing Assoc., Intl.—1959 Conv., Hotel Statler, New York, N. Y., Oct. 31-Nov. 2. Exec. Secy. Robt. H. Blundred, 549 W. Randolph St., Chicago, 6.

SNPA (Eastern Div.) Mechanical Conf.—1960 Conf., Hotel Dinkler-Tutwiler, Birmingham, Ala., Aug. 14-16. Secy. Walter C. Johnson, jr., P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1960 Conference, Hotel Marion, Little Rock, Ark., Mar. 6-8. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assoc.—1960 Conv., Hotel Eola, Natchez, Miss., Apr. 21-23. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assoc. of the Graphic Arts—1960 Conf., Hotel Park-Sheraton, Washington, D. C., June 20-22. Secy.-Treas. Cyril A. Horton, Research Laboratories, Eastman Kodak Co., Rochester 4, N. Y.



Why newspapers in three countries use Torstar mailing room systems

The Torstar System is a completely integrated method of handling newspapers. In it, the Wallastar Bundler bands more than 26 bundles of newspapers every minute. An exclusive, safe flat-wire weld seals the bands. This means that there are no sharp, projecting wire ends. Bottom Kraft paper is applied automatically by the Starwrapper (optional). The Stack-starter and the stack conveyors, of unique construction, minimize bottom paper creep. A complete Torstar System also includes special sectional tables. These speed handling and reduce fatigue. One famous newspaper has ordered ten Torstar Systems for its new gigantic mailing room. Few newspapers need ten, but many would benefit from just one Torstar System. Twenty-eight newspapers, in the U.S., Canada and England, have Torstar Mailing Room Systems. Write for complete information.

TORSTAR mailing room systems

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Assure loyal advertisers of this added certainty

Afford them the impact of full page color with maximum certainty of perfect register.

Encourage their use of ROP Blue Ribbon CC Mats, moulded by direct pressure and baked on the form, ready to go into the newspaper casting equipment for the number of casts that may be required.

Do this with the aid of your own direct pressure equipment, or that of a co-operating commercial mat molder.

Avoid that intermediate cast

When final curve casts are made from the usual shrinkage type newspaper mat, resulting imperfect register can nullify much of the effect of excellent planning, art engraving and presswork.

No mystery and no monopoly

You may have heard that "some shops" are producing baked-on mats for final casting. There is no mystery and no monopoly in this development. Any newspaper or any mat molder, equipped for direct pressure, achieves this advantage when he turns to the Blue Ribbon CC Mat. Rely on the established goodness of Blue Ribbons.

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For every advertising need

Blue Ribbon UC Mat

Sensitive base and coating tough enough to withstand pull of undercut halftone dots render this mat a good choice for general newspaper campaign purposes. Can be used for vacuum casting of curved newspaper plates.

Blue Ribbon CC Mat

Primarily for curved page casts. Strong base and coating fit this mat for multiple casting in autoplate. As many as 25 casts have been made without impairment.

Blue Ribbon Regular Mat

Sensitive base and coating adapt this mat to utmost fidelity in reproducing copper, zinc or plastic plates.

Blue Ribbon BC Mats

Soft base with stronger facing to combat undercut halftone dots.

Blue Ribbon UCR Mats

Specially developed for conditions where undercutting is frequent.

Certified Silvertone Mats

Highest quality for magazine and book work.

For dependable stereotyping, rely on Certified Dry Mats

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BLUE RIBBON MATS

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Automatic bundling machine saves $37,000 a year

AT FORT LAUDERDALE NEWS

At the Fort Lauderdale News an automatic USS Steel Strapping Machine Model 12 compresses, wraps, tensions, ties and ejects an average of 70,000 papers a day, seven days a week. It has cut operating costs at least $37,000 dollars a year over the previous method of bundling. Even when special sections are inserted in the paper by a crew of 33 "extras," there is no delay in production. On a recent Saturday—the only day when one edition is run—60,000 copies of a 56-page paper were put out in less than two hours, and the press run, insertion of special sections and strapping were all finished almost simultaneously.

Model 12 handles bundles from 4 to 14 inches thick and makes up to 24 ties a minute. The lightweight, high-tensile #18 gauge USS Steel Strapping is economical and holds papers securely, even when bundles get a fast, four-story circular chute-ride to the loading platform.

Mr. J. Millard Cain gave other reasons for his paper's purchase of the USS Steel Strapping Automatic Model 12 during a recent interview: "It costs less than competitive equipment; it presents no maintenance problems; and steel strapping costs less and is easier to handle."

Free Technical Assistance. Our Strapping Specialists are available to assist you to work out bundling and packaging procedures that will help speed up your operations. For further information just fill in the coupon below.

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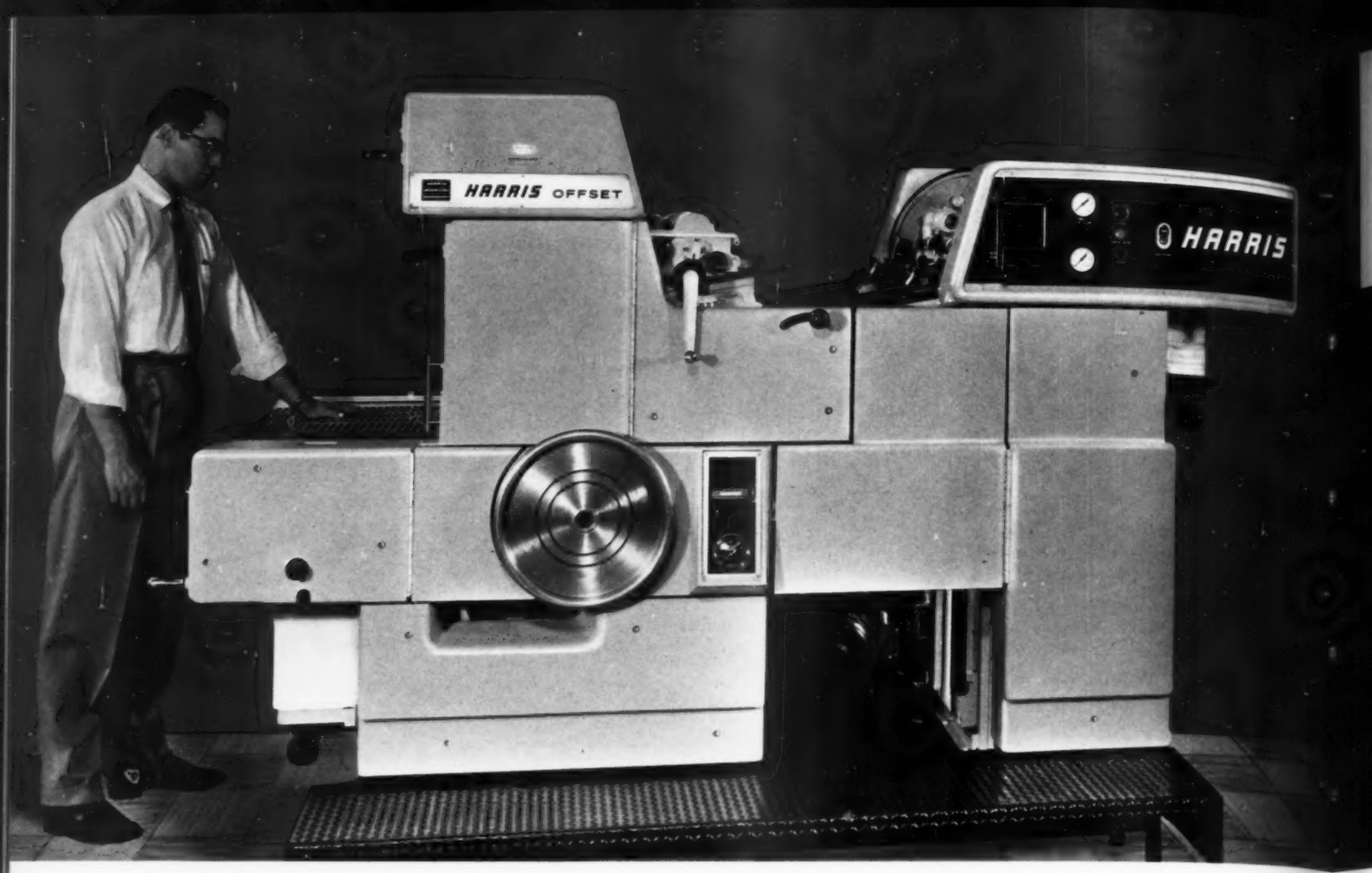
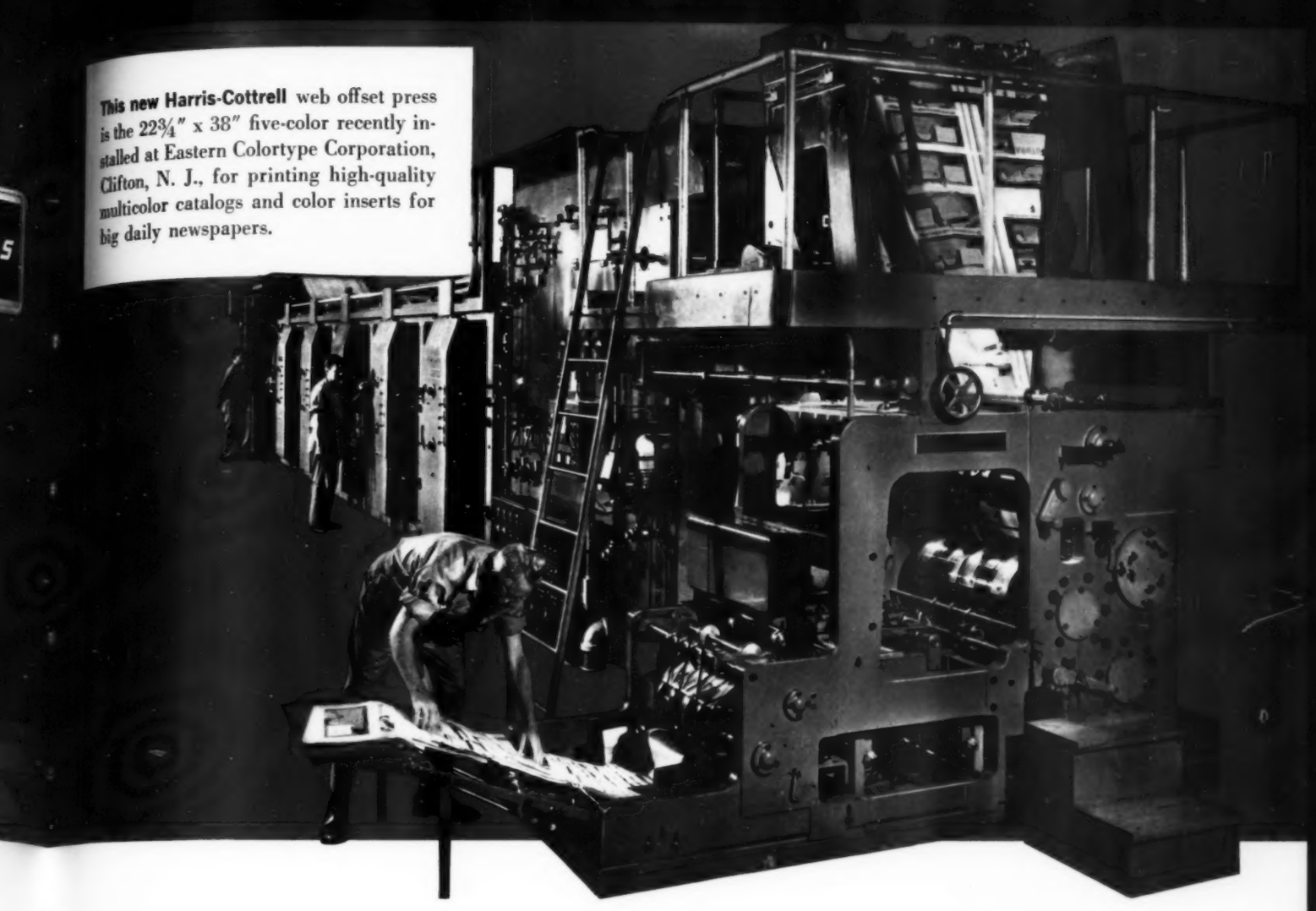


Modern Styling, higher speed and greater productivity are features of this new model 23″ x 29″ Harris offset press. Here the first machine completed at the Harris-Seybold Dayton plant gets final inspection before shipment to New York's Coliseum for introduction at the big 1959 Graphic Arts Exposition.

What's going on at HARRIS-

Largest sheet-fed Harris offset press ever built is this six-color 54½″x77″ Harris, shown after test runs at the Cleveland plant. George Houck, President of Harris-Seybold is standing by the new press. The fifth and sixth color units will provide unusual printing effects on greeting cards at low cost.

This new Harris-Cottrell web offset press is the 22¾" x 38" five-color recently installed at Eastern Colortype Corporation, Clifton, N. J., for printing high-quality multicolor catalogs and color inserts for big daily newspapers.



S-INTERTYPE

New Super Display Intertype Fotosetter, shown at South Bend (Indiana) *Tribune*, handles from 3- to 72-point type direct from keyboard without need for immediate photography.

HARRIS INTERTYPE CORPORATION

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Harris Presses • Intertype Typesetting Machines • Cottrell Presses • Seybold Cutters
Macey Collators • Harris Chemicals and Sensitized Plates • Gates Broadcasting Equipment

Eleven-year-old disc jockey, Shirley Bass, has her own show over WSYL, Sylvania, Ga. Seated at a new Gates Yard Console, she monitors her *Teenage Platter Parade*... using Gates 3-speed turntables and a 250-kw Gates transmitter.

TECHNICAL BOOKS

For the Production and Mechanical Executive

General

COLOR BY OVERPRINTING—By Donald E. Cooke. New economy edition. This is a guidebook in the art and printing techniques employing transparent inks in multiple combinations with a view to helping printers get their share of increased color printing. The method described is implemented with standard printing plates on standard presses by letterpress, offset, gravure and silk screen with existing equipment. This is a 268 page, 8½ in. by 11 in. book. It has 44 pages of illustrations, 165 pages of color charts with keyed numbers of inks employed to secure colors from 11 basic colors and black. The text is annotated for those who may be unfamiliar with the terms of the trade. Price $15.25 per copy postpaid in USA only. $16.25 in other countries.

ESTIMATING STANDARDS FOR PRINTERS—By Fred W. Hoch. This latest 278 page addition to the Standard Management Series has been prepared for industrial and student use. Production schedules, charts, tables and graphs contained in the text are to aid the estimator in a better understanding of average production for the industry. Chapters cover paper, slug, Monotype and hand composition; page makeup; imposition and lockup; makeready and press running; ink and bronzing; cutting; folding, stitching and trimming; bindery operations; and art work, engraving and electrotyping. $5.25 per copy postpaid in USA only. $6.25 in other countries.

PHOTOMECHANICS AND PRINTING—By J. S. Mertle and Gordon L. Monsen. This book is a valuable source of technical information to printing plant managers, superintendents, production managers and foremen in all mechanical departments. *Photomechanics and Printing* is a complete technical treatise for the Graphic Arts industry. Every platemaking and printing process is discussed step by step in the book's nine chapters. The exacting attention given to all facets of printing in easily understood form makes the book excellent for students and teachers.

Highlights of the book include chapters on originals for reproduction; photographic materials and equipment; continuous tone, line and halftone photography; color reproduction; photoengraving and letterpress printing; offset printing; photointaglio procedures; silk screen process, and a history of paper in printing. Size of book is 8½ in. by 11¼ in. with more than 421 pages and 310 illustrations. Hard bound in yellow cloth with slate stamping. Price, $15.25 per copy postpaid in USA only. In other countries, $16.25 per copy postpaid.

PENROSE ANNUAL—Edited by Allan Delafons. This is the 52nd annual edition. Technological developments in the Graphic Arts over the past few years are surveyed in a section of the book entitled *Editorial Notes*. Among the subjects discussed are powderless etching, tone correction, color, electronics, and engraving. Articles comprising advertising art, typography, type designing, management training, and various other areas of the Graphic Arts are presented in a section devoted to general topics. The technical section of the volume consists of 16 articles dealing with such subjects as: Bank note engraving, web offset color printing, ROP color, electronic color correction, nylon printing plates, and printing quality. Four of the articles appearing in this section were written by U. S. technical men. A number of colorful line illustrations and process reproductions are found in an *Illustrations of the Year* section of the book. Lithography, gravure and letterpress are represented in the samples. Examples of six color reproductions by letterpress and lithography are also included. Color has not been spared in the advertisement section, where several full color reproductions appear. A number of interesting layouts and designs are also found in this section. The book measures 8½ in. by 11¼ in.; 138 pages of text with nearly 100 pages of inserts and 50 pages of advertisements; hard bound, brown cloth cover. Price $11.50 per copy in USA only. Other countries, $12.50.

GRAPHIC ARTS PROCEDURES—By R. Randolph Karch. The fourth printing of a book on fundamentals of printing, written for the printer, printing student, apprentice, artist, copywriter, advertising and business executive. Includes: 384 pages, 257 illustrations; chapters on printing processes, type faces, layouts, proofreading, printing plates, imposition, presswork, bindery work and platemaking; 17 pages of definitions of Graphic Arts terms. Price, $4.75 per copy postpaid in USA only. In other countries, $5.65.

MATERIALS HANDLING APPLICATIONS—By D. Oliphant Haynes. Information on improving a materials handling program at commercial and manufacturing levels is given in D. Oliphant Haynes' new book *Materials Handling Applications*. The book should be of interest to superintendents, foremen, and plant engineers. It is a companion volume to the author's *Materials Handling Equipment*. According to Haynes, effective and economical adaptation of the materials handling job to the work area available is crucial to the solution of all types of materials handling problems. He backs this with information not only for individual jobs, but for entire programs as well. Instructions on how to make a materials handling survey and interpret results with a view to selecting an effective materials handling program are included in the book. Book consists of 381 pages and 1100 illustrations. Price is $12.50 in USA only. Other countries, $13.50 postpaid.

Composing

MECHANISM OF THE LINOTYPE AND INTERTYPE—By Oscar R. Able and Windsor A. Straw. This is the 1950 revision now in its 14th edition. Originally written by John S. Thompson. Approx. 200 illustrations. Prepared for machinist-operators, machinists and superintendents. Price $5 50 per copy. Postpaid in USA only. All other countries, $6.50 per copy postpaid.

Pressroom

OPERATION OF THE OFFSET PRESS—by Theodore F. Makarius. This book has been written for the man who must makeready and operate the offset printing press. Separate chapters in the book deal with setting the pressure, inking the rollers, dampers, ink fountains, mounting the plate and blanket, split fountain printing, drying problems, register troubles, and many other problems facing the operating offset pressman. Color charts are included, one of which demonstrates the difference in cleanliness of color when mixing two inks which complement each other. This is a 254 page, 5¼ in. by 7⅜ in. book, bound in a gold stamped semi-flexible cover. Price $10.25 per copy postpaid in USA only. Other countries $11.25 per copy.

PRINTING AND LITHO INKS—By Herbert J. Wolfe. All phases of print-ink making are said to be covered in the revised fifth edition of this 490 page book. Included are chapters on history of inks, raw materials, chemistry and physics, formulation, factory equipment, testing, ink troubles and remedies, and major types of ink (letterpress, offset, gravure), as well as special inks. Photos, charts and tables are used. Cloth bound with gold stamping; size 6 in. by 9 in. Price, $8.75 per copy postpaid in USA; $9.25 elsewhere.

HOW TO ADJUST WORK-UPS—By Wm. H. Lichter and Geo. F. Smalley. Booklet consists of 24 pages in which are analyzed and remedies are given for prevention and/or elimination of work-ups. Material written as result of actual plant experience. Size 5¼ in. by 7¼ in. Price $1 per copy postpaid in USA only. Other countries, $1.50 per copy.

Offset

OFFSET DUPLICATOR TECHNIQUES—Original edition by Richard Caruzzi; edited and revised by Fred W. Hoch and Carl B. Harris. The 96 pages contain 539 items of index information on offset duplicator techniques. Of the 17 chapters, special attention has been given to the revision of those pertaining to photography, chemistry, plates and platemaking, type and typesetting, and preparation of copy. Methods, materials and machines now used have been added. More than 100 illustrations. $5.25 per copy postpaid in USA only. Elsewhere, $6.25 per copy postpaid.

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New Coronet Press. The W. F. Hall Printing Co. recently unveiled this giant new Goss 5&5 color press for printing Coronet magazine. It incorporates many new features including the patented Goss continuous inking arrangement, prints over 3,000,000 pages per hour.

Beating down production costs with GOSS magazine presses

In the last 5 years new Goss developments have given publications like those shown below fresh ammunition to combat rising production costs.

Folding is the key to press speed and the new Goss folders have speeds up to 2000 feet per minute! Continuous ink feed makes possible uniform inking. New inking arrangements provide better quality from less mechanism. Unit construction gives flexibility for easy expansion. There's a complete line of Goss presses—designed for runs of 30,000 or many millions . . . 32- to 196-page capacity . . . 1-color to double 6-color.

Goss features add up to finer quality, faster production and lower production costs—in a press that's custom-engineered to your requirements. No wonder most of the magazine presses sold in recent years have been Goss!

Call in Goss for a no-obligation study of *your* production requirements.

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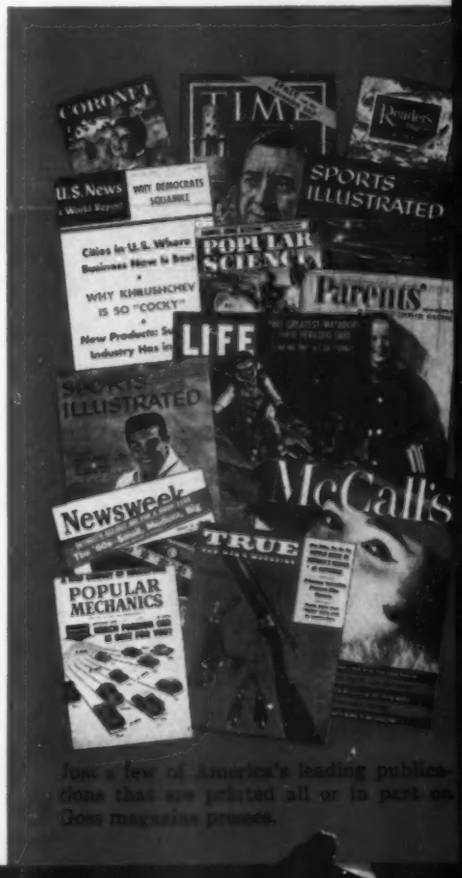


Just a few of America's leading publications that are printed all or in part on Goss magazine presses.

School Bells

National Scholarship Program

For the Printing and Publishing Industry

EMPLOYERS—

Please bring these deadline dates to the attention of your employees and their children who may want to apply for a scholarship and advise them to write for details to the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry.

DEADLINE DATE 1– October 20 and October 24, 1959

All high school graduates who want to compete in the National Scholarship Program for the Printing and Publishing Industry must take the Preliminary Scholastic Aptitude Tests in their schools either one of the above dates:

DEADLINE DATE 2– November 20, 1959

Applications must be in the offices of the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry.

The National Scholarship Program for the Printing and Publishing Industry is our industry's nationally coordinated effort to interest and encourage high school graduates and college students to choose the graphic arts industry as their career. The Program is administered by the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry, and in the past two years has granted 18 four-year scholarships to college students planning to enter the printing and publishing industry in some managerial or professional capacity.

In establishing a scholarship under the National Scholarship Trust Fund, a donor may designate the name by which the scholarship is to be known, and certain other restrictions and limitations. If you would like to establish a national scholarship now (as a tax-deductible contribution) or in the future as part of your estate, or if you simply want to make a contribution, write for free booklet. If you are now providing a scholarship, find out how you can (without any additional cost) offer it to the same college through the National Scholarship Trust Fund.

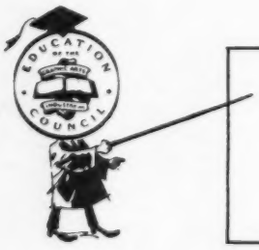
Looking for Qualified New Employees?
Take the First and Most Important Step—Now

SPONSOR YOUR FAVORITE SCHOOL

See to it that your favorite junior and senior high school principal and guidance counselor and printing teacher in your community (metropolitan as well as rural areas) have the *latest information* about vocational and career opportunities offered by the graphic arts industry. A recent study shows that many high school guidance counselors have little or no career information about our industry. Wage scale information in the files of many counselors does not go beyond the 1940's!

You can correct this situation now by participating in the Education Council's *SPONSORED CAREER INFORMATION PACKET PROGRAM,* and at the same time, establish liaison with your favorite school for employment referrals of qualified graduates.

The Education Council will send—each month of the school year—in your name—current literature, posters and booklets concerning the career opportunities offered by the printing and publishing industry. Start NOW: Send us the name of the school you wish to sponsor and your check for $17.50. No charge to members of the Education Council.



EDUCATION COUNCIL OF THE GRAPHIC ARTS INDUSTRY
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it's not true...

★ That Sheridan bindery machines are built to suit the requirements of only the largest edition, publication or trade binders.

★ Nor is it true that the cost of Sheridan equipment places it beyond the reach of the smaller bindery.

THE TRUTH IS ...

★ That Sheridan machines are built to satisfy the needs of all binderies, small or large, short run or long. The Sheridan automatic saddle binding equipment, for example, is available in a wide variety of combinations and sizes based on continuing industry-wide studies of bindery equipment and requirements.

★ Sheridan automatic saddle binding equipment is priced right in comparison with any other similar machinery available . . . and only Sheridan offers the added values of high hourly production for lowest cost/thousand, of a heavy-duty stitcher for higher product quality and lower operating costs, of quick-set adjustments for minimum change-over time that make short runs practicable and profitable.

So . . . before you purchase any equipment, call in your Sheridan representative. Get all the facts. Let him show you the right Sheridan combination for your needs . . . the way to increase profits. The T. W. & C. B. Sheridan Co., 220 Church Street, New York 13, New York.

SINCE 1835 **SHERIDAN**

For More Information Circle 157 on Reader Service Card

HELPFUL LITERATURE

FOLDERS · Sales Aids · Instruction Sheets · BULLETINS · Catalogs · BOOKLETS · Brochures

Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

INTERTYPE CENTURY FAMILY

Intertype Company, Div. Harris-Intertype Corporation, has available a 40 page booklet which displays Intertype's Century family of type faces. Publication gives over 80 sizes, styles and combinations, from 4 pt. through 48 pt. Circle No. 329 on Reader Service Card.

LANSTON AUTOMATIC TYPESETTER

Lanston Monotype Co.'s Monomatic keyboard machine and typecasting machine are described in a bulletin which includes capacity, speeds and features. Circle No. 342 on Reader Service Card.

MORRISON SAW TRIMMERS

Morrison Company has released literature concerning its line of saw-trimmers, slug strippers and strip material cabinets. The combination router, mortiser and planer is also described. Circle No. 354 on Reader Service Card.

UNIVERSAL STRIPCASTERS

Universal Mono-Tabular Corp. has available a folder describing the Universal Stripcaster and a sample 2 pt. hairline rule produced from Universal's twin mold and slide. The strip caster is adjustable for different rule and border patterns. Circle No. 337 on Reader Service Card.

STAR V BELT MOTOR DRIVE

Star Parts, Inc. is offering a bulletin in which is discussed its V belt motor drive for Linotype and Intertype machines. Included in the features are a variable speed pulley and an adjustable motor support said to provide vibration free operation. Circle No. 343 on Reader Service Card.

FAIRCHILD TELETYPESETTER

A booklet entitled *More Type in Less Time* has been prepared by Fairchild Graphic Equipment to describe operation of its Teletypesetter machines. Illustrations are presented in the 24 page booklet. Circle No. 365 on Reader Service Card.

FISK ALIGN-A-MAT

Descriptive literature is available regarding the Fisk Align-A-Mat for re-aligning Linotype and Intertype matrices. Distributor stops due to lugs worn short will also be eliminated, states Fisk. Circle No. 309 on Reader Service Card.

BORDER ATTACHMENT

Roll-A-Face Elrod attachment for borders and rules is described in a folder released by V. C. Shidler Products. Information about Speedangle printers' angle gauge is also offered. Circle No. 358 on Reader Service Card.

STEEL AND ALUMINUM CHASES

Amsco steel and aluminum chases are the subjects of a catalog published by American Steel Chase Co. Chases are for newspapers, commercial printers, stereotypers and electrotypers. Circle No. 367 on Reader Service Card.

MATRIX CONTRAST SERVICE

A booklet explaining Matrix Contrast Service is available from the Matrix Contrast Corp. Contrasted matrices are said to reduce composition errors on linecasting machine composition. Circle No. 366 on Reader Service Card.

ROUSE EQUIPMENT CATALOG

The Rouse band saw and power miterer are discussed in a catalog prepared by H. B. Rouse & Co. Information about Rouse's lead and rule cutters composing sticks, type gauges and other equipment is included. Circle No. 335 on Reader Service Card.

PERFORATOR TAPE SAMPLES

A descriptive booklet and samples of Perfection perforator tape for Teletypesetting is being offered by Paper Manufacturers Co. Circle No. 359 on Reader Service Card.

HAMILTON EQUIPMENT CATALOG

Hamilton galley cabinets, newspaper tables and ad assembly cabinets are described in catalog No. 28 released by Hamilton Manufacturing Co. Circle No. 361 on Reader Service Card.

Platemaking

KODALITH ORTHO PLATES

Eastman Kodak Co. is offering a pamphlet describing the technical properties of Kodalith Type 3 Ortho Plates designed to make line and halftone negatives and positives for photomechanical reproduction. Circle No. 374 on Reader Service Card.

KENRO VERTICAL 18 CAMERA

Literature descriptive of the Kenro Vertical 18 camera is available from Kenro Graphics, Inc. Camera will make line and halftone negatives, one shot, right reading photocopies and xerographic exposures. Circle No. 370 on Reader Service Card.

MONOMELT VACUUM CHUCK

Air-Grip vacuum plate chuck is the subject of a descriptive folder offered by Monomelt Company, Inc. Chuck holds plates in position for routing, proofing or shaving. Circle No. 346 on Reader Service Card.

SAMPLE REGISTER PIN AND MASK

A Carlson stainless steel register pin and a sample of Carlson Mask are being offered by Chesley F. Carlson Co. Register pin has thin base and is 0.250 in. diam. Circle No. 350 on Reader Service Card.

PHI ELECTRIC PLATEMAKER

In a six page illustrated bulletin, Pasadena Hydraulics, Inc., describes its bench and floor model PHI hydraulic presses for rubber and plastic plate molding. Circle No. 312 on Reader Service Card.

POWDERLESS ETCHING METAL

Micro-Metal and Micro-Mix are featured in a two color folder released by Rolled Plate Metal Co. and Atlantic Zinc Works, Inc. Micro-Metal is a zinc photoengraving metal designed for one-bite powderless etching. Micro-Mix is a chemical bath for halftone, line and combination powderless etching of zinc flats. Circle No. 315 on Reader Service Card.

OFFSET PLATEMAKING

The Rapid Printer platemaker for offset platemaking is described in Bulletin 230B, published by nuArc Company. The carbon arc lamp and printing frame combination makes plates up to 21 in. by 24 in. Circle No. 340 on Reader Service Card.

3M PLATE TREATING PROCESS

A description of its 3M plate treating process for electrotypes is provided in a booklet offered by Lake Shore Electrotype of Chicago. The process is used to provide premadeready electros. Circle No. 333 on Reader Service Card.

BRIGHTYPE CONVERSION PROCESS

The Brightype method of converting letterpress printing material into photographic images for use in offset-lithography rotogravure and other printing processes is the subject of a folder prepared by Ludlow Typograph Co. Circle No. 368 on Reader Service Card.

ELECTRONIC ENGRAVING MACHINES

Pictures Like These is the title of a 16 page booklet issued by Fairchild Graphic Equipment. Photos in the booklet were electronically engraved by Fairchild's Scan-A-Graver and Scan-A-Sizer. Circle No. 362 on Reader Service Card.

MASTER POWDERLESS ETCHER

Literature is being offered by Master Sales & Service Corp. concerning its Model M-32 powderless etcher which features bath volume of 20 gal. Information about the Dow-Master powderless etchers is also available. Circle No. 353 on Reader Service Card.

CONTACT SCREENS

A descriptive folder regarding Universal gray contact screens has been issued by Caprock Developments. The Universal is a gray contact screen which is said to shoot quickly and give good contrast and tone values. Circle No. 369 on Reader Service Card.

Pressroom

G-E WEB BREAKER AND DETECTOR

A bulletin has been issued describing General Electric Co.'s web breaker and web-break detector designed to safeguard presses operating at high speeds. Web-break detector features four arm positions. Circle No. 320 on Reader Service Card.

HERBERT CURASTAT

A booklet on the Herbert Curastat for static elimination on machinery has been published by Herbert Products Inc. Curastat is operated by individual power unit. Circle No. 357 on Reader Service Card.

IDEAL SYNTHOX ROLLERS

Literature describing Synthox rollers for use on letterpresses and Sticktite rubber plate adhesive has been published by Ideal Roller Mfg. Co. Rollers have a face made of synthetic material. Circle No. 325 on Reader Service Card.

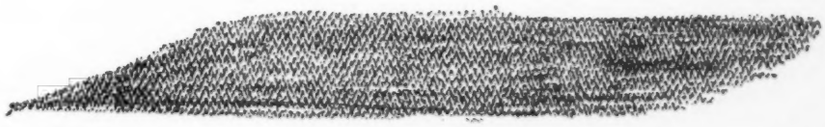
OFFSET BLANKETS

Reeves Brothers, Inc. has released a price list for Reeves-Vulcan Duroflex and Durofyne offset blankets. 180 blanket sizes and types for 27 makes of presses are listed. Circle No. 322 on Reader Service Card.

(Continued on Page 93)

Mat Pak gets editions on the street—fast

MATRIX BACKING



cuts mat processing time in half, saves money!

Mat Pak gives you better plates and half-tones with deep, automatic, uniform packing—quality reproduction at less cost. With Mat Pak, your processing time is cut in half to give extra speed from composing room to press room, speed needed to meet close deadlines. Mat Pak has been used with greatest success in full production by leading newspapers for as long as two and one-half years. For your newspaper, Mat Pak will help curb rising production costs and ease the manpower shortage. Give Mat Pak a trial. Write to Kimberly-Clark Corp., Neenah, Wisconsin, Dept. Number PP-99.

Mat Pak is a trademark of KIMBERLY-CLARK CORP.

Kimberly-Clark Corporation
NEENAH, WISCONSIN

For More Information Circle 101 on Reader Service Card

The LUDLOW Way to Profits

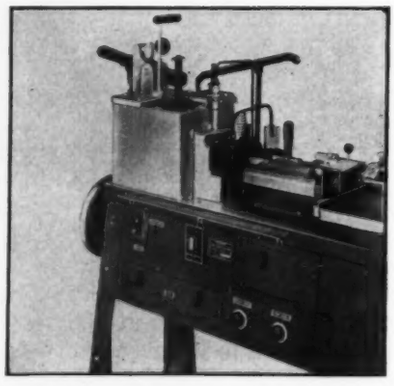
These Ludlow products afford profitable operation with direct production results, avoiding unnecessary steps that slow down the work. All three have earned their standing in the printing industry—Ludlow for fine typography, Elrod for quality strip material, and the Brightype camera for quality conversions.

Ludlow All-Slug Composition

Direct slugline composition with easily-handled Ludlow matrices, from copy to hot metal to form, eliminating the manufacture or purchase of single type. Solid slug forms expedite make-up and lockup, and save press-room time. These short cuts mean larger profits for you.

Brightype Conversions

This method uses existing typesetting facilities to convert letterpress material into photographic images for offset lithography, letterpress and other printing processes. Eliminates many operating procedures; assures clean, sharp reproduction. Brightype users find it a time-saver in handling most requirements.



Elrod Quality Strip Material

This single-purpose machine effectively produces an abundance of quality strip material for many uses. Simple in design and mechanism, the Elrod requires minimum operator attention, and the material withstands hard use. Ideal for spacing material, rule and base. Gas or electric-heated; six different models to fit your particular needs.

Ludlow, Brightype and Elrod folders will show you how to increase your profits—write for your free copies

Ludlow Typograph Company · 2032 Clybourn Avenue, Chicago 14

Set in members of the Ludlow Record Gothic Family

For More Information Circle 107 on Reader Service Card

PRINTING PRODUCTION
SEPTEMBER 1959

TYPOGRAPHERS ACHIEVE

Economy in Production Plus Pleased Customers

THE ability of a typographic composition house to remain competitive, for the most part, centers around fast and efficient completion of quality work. One of the roadblocks to efficiency in this work is the lack of a streamlined system for keeping track of jobs in the house. Accordingly, Monsen Typographers, Chicago, decided to institute in its new Los Angeles plant a system to eliminate this type of roadblock.

The system centers around a customer service desk. As the liaison between the customer and production, it is the control center from which jobs are received, assigned, and closed out for billing upon completion.

Quick Access to Job Tickets

"With the customer service desk and system for expediting work, we are able to locate a job in the house in less than a minute," said Joe Kristan, Los Angeles manager. "Most type houses require a much longer time—anywhere from 5 to 25 minutes."

Here is how the system works. Incoming orders—whether by telephone, salesman, walk-in trade, or Monsen pickup, are sent to the service department. Here they are entered in a ledger, which provides a running account of all jobs in process.

Main piece of equipment for the customer service department is a large square desk with a Lazy Susan type of horizontal rotating wheel mounted on top and in the center, shown on this month's front cover. The wheel is equipped with bins to accommodate order folders. On the outer rim of the wheel are plastic holders containing printed cards which show the most commonly requested type faces and sizes.

Four markup or customer service men, as they are called, normally man this desk. When a markup man gets an order, he specifies how the job will be executed. This involves indicating type face and type size for the body copy and for all heads, sub-heads, blurbs, etc. If the customer has already specified what he wants, then the markup man's job, of course, is simplified. In actual practice most Monsen customers rely on the markup man to select the type and style the job.

After type selection, all paperwork is placed in a job folder. The outside of this folder bears a ruled form which carries detailed instructions for completion of the job.

The folder is then returned to the production foreman's desk for action. Here one of two types of production slips is made up, depending on the urgency of the order. One type of slip is made up for the same-day work, another type for work with a later completion date. The foreman then sends the entire fold-

In addition to other means for insuring accuracy and economy in production, salesmen explaining incoming orders to service man at the service desk. Here Salesman Jim Sorg is explaining an incoming order to Service Man Howard Neil. Orders come into the plant by salesmen, telephone, walk-in trade or by pickup. The order being discussed here will be entered immediately in a ledger and the job tickets opened for the job. Instructions then go to the production department.

er—copy, markup man's instructions, and production slip—to the production floor where the work is done.

On completion, the folder returns to the customer service desk.

The folder is then placed in one of the bins on the rotating wheel. All jobs are arranged alphabetically, so that they can be located immediately when the customer calls in his approval or requests changes.

When the customer returns his proofs or calls in his approval, the customer service man rotates the wheel until the job folder is in front of him.

Efficient Handling of Changes

Changes are handled quickly and efficiently. When a request for a change comes in, the markup man writes a Revise Order, which becomes a permanent part of the paperwork in the job folder. The Revise Order goes to the production floor with the job folder for the alterations.

The customer service desk is a self-contained unit designed to provide the markup man with the necessary tools for expediting all jobs that cross his desk. For instance, to keep both hands free to work, each man is equipped with a headset and mouthpiece instead of a conventional telephone.

A type selection book for each customer service man is permanently located on the desk. Since new faces and sizes are being added all the time, it is virtually impossible to keep this book up to date, yet complete information on all type faces and sizes is available instantly. This is accomplished through the use of up-to-the-minute specimen sheets which are held in plastic folders on the outer rim of the rotating wheel.

For example, the customer service man first turns to the type book to select type faces and sizes. The book shows the customer service man exactly which point sizes are available for the type he has selected. It also shows whether or not there are small caps, certain accents, character count, whether or not a headline will fit in 24 pt. or other point size, and other similar information.

All job folders go direct from the customer service desk to the billing department upon completion. Here another innovation to increase efficiency has been instituted. The billing department is located in an adjacent room, with a window in the wall for quick and easy exchange of information between customer service and billing.

In the Monsen Typographers' Los Angeles plant, Fred Walters, night superintendent (seated) gets run-down on a job from John Conroy, day superintendent, that has been started on the day shift and will be finished at night. Connecting communications from one shift to another are complete.

Saving Clerical Work

Another innovation worthy of mention, is the use of rubber stamps for all regular Monsen customers. These are used to stamp the name and address of the customer on new job orders, delivery labels, copy and other materials. Over a period of time, this eliminates a considerable amount of handwriting.

After a job is billed, the job folder goes to the morgue where it is kept on file for one year. Thus, there are only three places to look for a job—at the customer service desk, in the billing department, or in the morgue. If the job is in the house, but the job folder is not at any of these locations, it must be on the production floor.

Locating Job on Floor

The exact location of a job in work on the production floor can be determined by refering to copies of the production slips which are kept on the production foreman's desk. These slips show not only the location of the order, but the hourly time schedule for same-day jobs, promised delivery hour or date, and hour-by-hour progress. These slips are correlated to entries in the job ledger, which provides a cross check on the status of current jobs.

To round out its service, Monsen recently purchased a high-speed stat making machine. Many times a customer will want sharp, clean enlargements, reductions or negatives of the reproduction proofs that Monsen supplies him. Because of the sprawling size of the Los Angeles metropolitan area, a customer cannot always get such stat quickly unless by chance a stat house is located nearby. The stat making machine can reduce a proof to 1/3 its original size, or enlarge it to 3 1/2 times original size.

Editorial Force Assigned to Exposition

At press time of this September issue the biggest single week for the printing industry since 1950 was unfolding as thousands of its members flocked to New York City to view two huge equipment shows and attend the dozen trade association conventions.

On the scene also were a corps of experienced editors and writers of PRINTING PRODUCTION who filed stories daily on the important events taking place.

Dean of the group is former editor MacD. Sinclair who will observe and write about developments at the Graphic Arts Exposition as well as report two of the important conventions for the October issue.

Other stories on the Exposition will be by-lined by Editor Ed Owen who will provide readers on-the-spot stories of significant equipment introductions staged at the big show.

Staff writer William Silverman is covering the Spectra equipment show at the New York Trade Show Building and the Printing Industry of America convention at the Waldorf-Astoria. Other stories on trade meetings and the equipment shows will be handled by staff writer Ron Abrams in providing the best possible coverage of the Sept. 6-12 week.

It is the largest editorial force assembled by PRINTING PRODUCTION for a single assignment. Look for the important Exposition Week stories in the October issue.

How to Control that

FLUE FIRE

. . . How fires start, recommended prevention measures and properties of various extinguishing equipments.

By GEORGE H. EDDLEMAN, *Imperial Type Metal Company*

FIRES in exhaust-system flues, for platemaking metal pot equipment can be time-consuming, costly, and dangerous. Almost every newspaper and printing plant at some time or another has been plagued by this demon. In fact, such fires occur periodically in some plants. In an effort to prevent or at least minimize the occurence of these fires let us study the problem by first determining why they happen and then how they can be prevented.

What burns? The suction fans draw up into the flues a number of materials which are combustible such as oil vapors, solvent vapors, dust and finely divided dross. The oil and solvents settle out on the sides of the flues and entrap the solid dust and dross particles.

Normal dross consists of lower oxides of metals which can be burned (when combined with additional oxygen) to form super-oxides of the metals. This reaction takes place at a higher temperature than that generated in the metal pot. Once started this generates sufficient heat to keep the reaction going.

How Flue Fires Start

How does the fire start? It is seldom that such fires begin spontaneously; they are usually started by sparks or open flames. Remelt stereotype and electrotype metal pots should not be made to serve as incinerators for the disposal of combustible waste material such as wood, paper, rag, string, etc.

When forms containing wood, cardboard, paper, string, etc., are dumped into the pot for remelting, the quantity dumped at any one time should be regulated so as not to create a huge bonfire. Plates heavily coated with ink, grease or oil should be handled in the same manner.

Wax type fluxes should be used in accordance with the instructions furnished by the manufacturer.

One seemingly harmless act which has been known to start such fires is the flipping of a cigarette on top of the molten metal in the pot. The paper smoulders, breaks away from the tobacco and is drawn up into the flue as a live coal.

Fire Prevention Measures

The proper method of extinguishing any fire should include certain precautions which are taken before the fire starts. These are:

(1) Flues should be cleaned periodically, the smaller the amount of combustibles present the less likely the fire is to start and the less intense if started. The cleaning of flues is not an easy job and usually winds up as a combination of vacuum cleaning and hand scraping operation.

(2) Some plants have had excellent success with metallic type filter screens installed in the ducts or flues relatively close to the actual air inlets. It must be remembered, however, that these are not cure-alls; usually a certain percentage of all combustibles will still pass through them and collect on the walls of the flues. Such filters must be cleaned at periodic intervals, otherwise they themselves will catch fire and ignite the material collected in the flues as well as physically destroying the filters.

Deprive Fire of Oxygen

(3) All fires must have oxygen in order to continue burning. The exhaust fans will freely feed a fire in the flue with more than enough oxygen in the large quantities of air it pulls through the fire. One of the first things to do is to shut down the exhaust fan as soon as a fire is discovered. This can be done manually or automatically. Any dampers in the flue should also be closed instantly.

One satisfactory method of automatically closing the dampers and shutting down the exhaust fan is with a thermally operated switch installed in the flue. Such a switch is operated by the temperature of the gases passing through the flue and over a bimetallic element or other heat sensing device which is part of the switch. When the temperature of the gases exceeds a preset maximum, then electrical contacts in the switch proper are opened or closed. In turn they operate electrical motors or other devices which control the position of dampers and operation of blowers or fans.

In some installations safety links are used. These are similar to those used on fire doors which are usually open but close whenever a fire starts near them. These links are installed in a line which is under tension. When heated above a specific temperature they will pull apart and break the line. This action in turn allows spring or weight-loaded dampers and switches to change their positions.

(4) Flue fires are insidious and most always start, and are burning quite vigorously, before personnel inside the plant even suspect that there is anything wrong. If no other automatic device is used, certainly some sort of warning system should be installed. This could be as simple as a thermally operated switch or contact thermometer installed in the flue. This type of device actuates a horn, whistle or light when the temperature exceeds a preset maximum.

(5) It is usually an excellent idea to discuss the problem with the insurance inspectors and the local fire department. Both may have helpful suggestions concerning

(Continued on Page 92)

● *First of a series on the misconceptions of research and why printing has 'missed out' on benefits it brings.*

MR. PRINTER, YOU'RE TO BLAME FOR

Status of Graphic

I HAVE been asked many times: *Must Graphic Arts research seek status?* My only honest reply to the question is *Yes.* The reason is that in spite of the widespread liberties taken with the true meaning of the word *research,* by advertising copy writers, and the popular concepts of research held by the public and the business executive, research in the Graphic Arts field is likely to be more gimmick in nature than it is in action.

It is readily apparent that research has been a great provider for the Du Ponts, the Radio Corporations, the 3Ms, the Standard Oils and others. But important as these firms are in their fields, and as spectacular as their results have been, their philosophies have not penetrated the great wilderness of industries outside the process areas.

Researcher and Communications

I refer here specifically to the Graphic Arts industry as an example whose understanding of the meaning of research is woefully inadequate and quite naive. The most difficult task of the researcher is that of communication. He fails miserably in his attempts to get across his concept of studying the unknown to craft and management alike in this industry.

Joseph Chanko, general manager of Conde' Nast Press, has said: "Research to most people envisions a gleaming laboratory housing marvelous equipment and staffed by scientists and engineers who discover wonderful products and processes. This may be true in electronics, plastics, aviation, atomic energy, etc., but in the printing industry, as we all too well know, research is more prosaic, and is carried out on a minute scale by comparison with the newer industries. The average printing plant is too small to spend an appreciable sum on research. The larger plants (only a handful) do much more *development* than research."

Research involves constant testing as well as skilled scientists. William Brennan, physicist at Armour Research Foundation of Illinois Institute of Technology, Chicago, inserts paper sample into Fotocoat machine which evaluates conductive coatings for the Electrofax process.

Professor Zettlemoyer of Lehigh University and the National Printing Ink Institute, shows concern too when he says: "Perhaps my greatest concern is that the word *research* is used in the Graphic Arts without the proper connotation. Usually some sort of technological or development work is meant, but not research. The word is maligned. Management thinks it is doing something or getting something which it really is not getting. The whole chance of scientific effort has been watered down in the Graphic Arts more than in any other industrial area with which I am familiar.

"There is also a great need to bring together the various segments of the industry for real research efforts. Admittedly, the field is diverse, and the segments do not always have to be brought together, but sometimes they are. I recently attended a management-industry conference run by the paper industry. One university man was there for each industrial man. After my talk, I was shocked to learn the number of people in high places in the paper industry who believe that how paper prints is not their concern—at least from the research point of view. We are exhausting our primary knowledge without extending it."

It is not easy to be critical of an industry in which one has spent so long a time and of which he has been so much a part. Perhaps if some of us who have been telling the research story for so many years would have been more outspoken in our earlier days in the industry, more progress might have been made. We have depended too much on the wisdom and knowledge of top management. Perhaps too it is just as certain that some of us would have been retired at an earlier age (by request) if we had been outspoken.

Unfortunate Comparisons

It is unfortunate that we who have had some contact with research in the industrial firms making oil and chemicals use these industries too frequently as examples of what research has done and what it can do. These are not printing industries. They differ from the printing industry mainly in that they produce a wide variety of consumer products—products on which a small savings in cost, or an improvement in performance, usually has a tremendous effect on sales and profit. Furthermore, their products may actually change in character overnight from the results of research.

Printing executives reading the financial reports of pharmaceutical houses, for example, find that 95% of today's sales cover products unknown and undeveloped five or ten years ago. Their reaction and conclusion is that their industry should show the same performance. "They

By MARVIN C. ROGERS, Ph.D.
Consultant, Flossmoor, Ill.

...ic Arts Research

Well known to the lithographic industry are Lithographic Technical Foundation research executives Michael H. Bruno (left) and Robert F. Reed. Improvements and advancements in the litho process come from the thinking of such men as these.

hire a man with a white robe and say 'now we are in research too,' and frequently the research done this way turns out to be nothing more than a fireman putting out fires." This holds for the large and small firms alike.

"Let George Do It" School

W. L. Rhodes, head of Research Department, Rochester Institute of Technology, finds another attitude or state of mind related to the "let George do it" school. He says: "I have frequently heard the comment: 'When you get that process perfected I want to put it into my plant, but don't see why I should spend my dollars and time developing your process when it may not work.' It would seem from this attitude, that they (printers) believe research to be simply a new way of life or of doing a job. They want no part of the responsibility or risk in it. They would like, for example, to close down one evening on the old method and open up the next morning on the new method without retraining or any loss of time."

I doubt that either management or craft will admit to these criticisms. I believe they are true to a large extent, however, as was implied in the statement of one of our widely known research executives at the 1958 PIA Production Conference in Chicago, when he said: "There are hundreds of men in the printing industry who will travel the length of the United States for a meeting at which they hope to get something for nothing (information), but on the other hand, they will refuse to contribute $100 to research without a guarantee of favorable results."

Let us examine the research picture before we become too critical of the Graphic Arts industry. I must stress too, that I am writing here mainly of that group directly involved in the actual printing or reproduction industry, and not the supplier or potential supplier group. There is a real distinction between them which is important, which we shall see later.

There are some fundamental differences between the history of Graphic Arts development and that of the chemical or electrical industries where the results of research have been so well dramatized, as Chanko has mentioned. The chemical and electrical industries, for example, are founded on sound theoretical bases—the basic sciences. They have been prospering from the tremendous backlog of fundamental research information in chemistry and physics, from Europe and elsewhere for more than a century.

The impetus of war, and our remoteness from Europe, have tended to pressure us into doing what we can do best, development work, applied research, and production. These latter activities utilize the fundamental knowledge coming to us from the basic research done in the sciences. We convert it to useful and practical products of the kind that the impatient manager understands. Impractical basic data are converted through development into practical and profitable results.

The Graphic Arts, on the other hand, is an industry going back 500 years or more, with some obvious but remote connection and dependence on the sciences, but with virtually no running contact with them. There is an almost complete absence of fundamental data or results from basic research on the phenomena governing the printing operations. Furthermore, the printer's product does not change in form; it always seems to be ink on paper, and does not lend itself to the glamorizing process.

Consequently, when we look to the field for research and development in the industry, we tend to

MARVIN C. ROGERS, by reason of association and experience, can be considered an authoritative spokesman for research activities in the printing industry. He holds a B.S. in Chemical Engineering degree from the University of Minnesota and a Ph.D. from the University of Michigan. His industrial experience has included research and development work outside the Graphic Arts field. He served as research director for the world's largest commercial printing company, R. R. Donnelley & Sons Co., Chicago. He is now devoting his efforts to consulting activities in the Graphic Arts, serving printers, suppliers and users of printing.

Dr. Rogers is also a director of the Chicago Paper Testing Laboratory, Inc. He is a past president of the Technical Assoc. of the Graphic Arts; past chairman of the Chicago section of the American Chemical Society; and chairman of the Platemaking Committee for the Research and Enginering Council of the Graphic Arts.

Hundreds of substances both new and old have been checked for their suitability as improved lithographic platemaking materials at Lithographic Technical Foundation laboratories.

study the processes and methods designed to reduce costs and improve quality. Sometimes, like the development of heat-set printing, we get a new type of ink and paper to produce the same sort of product. The dearth of basic information from abroad, and the nature of printing then tend to preclude the same sort of spectacular results found in the glamor industries today. A completely new approach is necessary.

Not Getting Share of Talent

It may always be difficult for researchers in this industry to undertake true research investigation, and it may be no easier for them to do true development. The basic data are absent, and no system exists at present to obtain them. Then too, the art in printing is further complicated by our inability to define quality or measure accomplishment objectively. These are very complicated problems requiring the best brains available. But the brains are not attracted to an industry in which the climate is cold, and in which research is looked upon as an expense rather than an investment. Zettlemoyer comments: "Considering the wealth of the industry, we certainly are not getting our fair share of scientific talent. Much could be done to glamorize the industry by taking the viewpoint that progress everywhere depends on the Graphic Arts in the final analysis. The term, Graphic Arts itself is not conducive to enticing Ph.D's into the industry."

The researcher finds himself befuddled and confused, because he must develop on uncharted and unproved ground. Many times he finds his basis for planning is not a good one. The hunch of the machine operator, rather than well controlled experiments is the basis for his problem. Sometimes it is the enthusiasm of the foremen or of the owners themselves which serves as the basis for the "research" project.

The research director of a large fiberboard firm, whose research attitudes are a model for any industry, gives us this gem: "I know people who look at research as their great hope somewhat in this light: Research is not important as long as things are going well. When things get tough, though, it is time for research to come through. They put their last quarter in the slot machine and expect the jackpot each time. I am afraid this is the kind of thinking of most management people in the printing industry."

Michael Bruno, Research Director for Lithographic Technical Foundation, said in a recent talk to the National Association of Photo Lithographers: "It is interesting to note that the chemical industry, with around $10 billion per year of sales, spends $250 million annually on research — about one fifth of what all industry spends.

"Now consider the whole of Graphic Arts. Its sales are $8.5 billion yearly, but only $6 million go to research. It is no wonder printers complain about low profits."

It is difficult to determine the accuracy of Bruno's data. But it is certain that greater part of the $6 million is devoted to projects which would be hard to describe as being real research or development. Many are actually gadgets likely to come from efforts at improvement of a machine.

It may be unfair to make comparisons of research expenditure for the chemical industry with its low raw material costs, and the printing industry with its high raw materials costs. Paper and ink for example, are finished products of two industries, and the printed product is only these same materials in a special arrangement. Thus the service which the printer contributes to the printed product, probably bears a smaller relation to the product selling price than does the same efforts of the process industries. Research expense therefore has a smaller base against which to apply its results.

The small business nature of the industry is another aspect of the research problem which cannot be solved in manner similar to the larger units of the process industries. The whole question of association research, or of government research, is a subject which would have to be explored to answer this problem.

We have so far been pretty critical of the Graphic Arts industry as a supporter of research. The industry is not without its research groups and we shall discuss them later. The pattern of research, however, is tending to follow that of other industries in situations similar to those found in the Graphic Arts.

Regarding the Backward Industry

Dr. Clifford Rassweiler, Johns Manville Corp., in the Federation of Paint and Varnish Clubs bulletin, discussed the problem and characteristics of the "backward industry."

He summed up his viewpoints by saying: "Radical new developments ordinarily do not come from within the backward industry. Some other industry with a higher developed technology looks upon the low level industry and says: 'I can apply what I know to their problems, and place myself in a favorable position.' "

This seems to be exactly what is happening to the Graphic Arts.

Ten to fifteen years ago, the names of Fairchild, RCA, 3M, Hell, Dow, Photon, Du Pont, Kodak, and others were unheard of, or of minor importance to the industry. Today each of them has something to offer which is bidding for a big slice of the industry's expense or sales budgets. In one excellent example, an industry customer and publisher, Time, Incorporated, has stepped into the field with its own development program which has served to spark scores of new and bold projects.

Major changes are taking place in the industry and it would be foolhardy of me to try to pick the most important changes in recent years. No single process or piece of equipment seems to have become predominant, unless it has been the success of the rotary principle on presses. This refers particularly to offset which seems to be spelling the end of the flatbed letterpress as we once knew it.

Areas of Greatest Potential

To me the most fascinating field, and the one in which the scientist and engineer may come into their own in the industry, is that of character recognition devices and phototypesetting devices, some of which are still dreams in the inventors' minds. These areas which offer great potential in the conversion of intelligence to the printed page quickly and accurately seem to me to be the field for much future true research and development. But like many others they seem to be coming from groups outside the industry. The impetus from within is still only in the simmering stage.

There are industry efforts which have been making some good progress, too. We shall mention them here, but will deal with them more in detail at a later time. The growth and strength of the offset industry and of the Lithographic Technical Foundation are our best example of an industry lifting itself out of troubles. Photoengravers Research, Inc., with its research-developed powderless etching process for copper; Printing Plates Research, Inc., with its electroplastic plate; Gravure Research, Inc., with its work on carbon tissue and on the reproduction processes, and the Book Manufacturers Institute with its program to improve binding. More recently, the contemplated formation of the Printing Foundation, and Letterpress Research were announced.

There is activity in the right places. Once the understanding reaches the proper levels there will be some real progress made. If this understanding does not come soon, then it is likely that the industries now serving as suppliers will, in effect, come into control and possibly be the owners of the industry of the future. The status of research in the Graphic Arts as yet is not out of its early childhood. It needs the assistance and encouragement of its parent, the industry itself.

NEXT MONTH: *What the supply field is doing in research.*

15 Printing Tons per Person

WHETHER he reads all of it or not—there'll be 15 tons of printed matter produced for every individual in the United States, during his lifetime.

That's the present rate at which presses are turning out books, papers, magazines, handbills, advertising material, and other forms of printing for the American reader. And, if the previous rate of increase holds, there's likely to be a lot more per person tonnage future output of printed matter.

These facts were revealed by Raymond Blattenberger, public printer of the United States.

The occasion was the annual educational activities dinner for 60 employees of Darby Printing Co., Washington, D. C., who completed company-sponsored courses.

Blattenberger, who heads the United States Government Printing Office, told the gathering that printing business in this country has grown about three times as fast as population. In 1850, he said, there were approximately 14,000 people in the nation's work force in the Graphic Arts and related industries. Today, there are over 800,000 employed in the same field. These figures represent an increase of 60 times in the printing trades and professions, against an increase of only seven times in the population. Production, in 1850, totaled about $85 million. Today's products associated with the Graphic Arts are valued at more than $8 billion.

Trained Personnel Needed

Interest in education, and more leisure time for reading are factors which Blattenberger held responsible for the great expansion in the printing industries.

The printing industry, Blattenberger asserted, is handicapped by an insufficient number of men in training to take care of normal manpower losses from death, retirement, and other causes. The industry, too, has a disproportionate number of workers over 65.

"These facts," said Blattenberger, "indicate clearly that there is going to be a constant and increased need for people to go into the graphic arts industry, and the indications are that the need will greatly exceed the present rate of influx."

Blattenberger indicated that the Education Council of the Graphic Arts Industry is presently cataloging for schools the characteristics desirable for personnel in the Graphic Arts. He recommended that every liberal arts college should give courses in the history and background of printing, so that students will have a better idea of the possibilities open to them in the industry, as well as a knowledge of printing as a working tool.

More Training at College Level

Noting that most Graphic Arts training is now being done at the vocational high school level, Blattenberger pointed to widespread demands for more training at college and university levels. This includes training for management as well as for the top and for personnel closely related to the shop.

"The rapidly expanding newer processes call for scientific and engineering instruction that the public high schools or the shop itself can hardly be expected to provide. The various trades have become too involved, too complex, too scientific for the old time training and apprentice practices to produce the men we need," concluded Blattenberger.

Handsome and inviting main entrance to Miami *Daily News* building erected in 1957 at a cost of $7½ million. Two story facade consists of modern materials in pleasing color contrast.

MIAMI NEWS BENEFITS FROM YEAR-ROUND

Air Conditioned Plant

By JULIAN EBERLE, *Production Manager, Miami* News

THE newspaper industry as a whole—and the Miami *Daily News* in particular, provide evidence of the increasing trend toward modernization of newspaper plant facilities throughout the country. Situated on a 6 A. tract along the Miami river, the new Miami *News* plant and office building includes such engineering features as an automatic conveyor system, modern lighting, space for storage of 1700 T. of newsprint, and year-round central air conditioning.

The structure houses 176,000 sq. ft. of usable floor space which eventually will incorporate an expansion of facilities geared to meet the need of 1.5 million people (twice current total) in the greater Miami area. The 400 ft. by 175 ft. building is two stories high, and may be described as having "production rhythm". Raw materials flow from editorial and advertising in the east section of the second floor, along an automatic conveyor system through composition, engraving, and stereotype departments, press room and mail room (all on the second floor), to the truck loading platform at the extreme western end of the building.

In planning a modern newspaper plant, *News* management surveyed modern newspaper buildings throughout the country. Among other things it was found that inclusion of year-round central air conditioning greatly increased the flexibility of plant design. A wider use of interior space, served by conditioned air, insures adequate room for personnel especially in editorial, advertising and production departments. Thus it was unnecessary to give major consideration to exposures, lighting, windows, etc. With controlled atmosphere space allocations were made on a work merit basis; the building was designed for economy and efficiency. Air conditioning has become a utility of great importance in newspaper operation.

Serves Multiple Needs

The excessive heat load of a newspaper plant is severe enough. However, when compounded by the semi-tropical climate of southern Florida the need for a versatile air conditioning system becomes almost mandatory. (Historically, air conditioning as an industry was born with the first system scientifically controlling temperature and humidity invented by Dr. Willis H. Carrier for a Brooklyn, New York printing plant in 1902.)

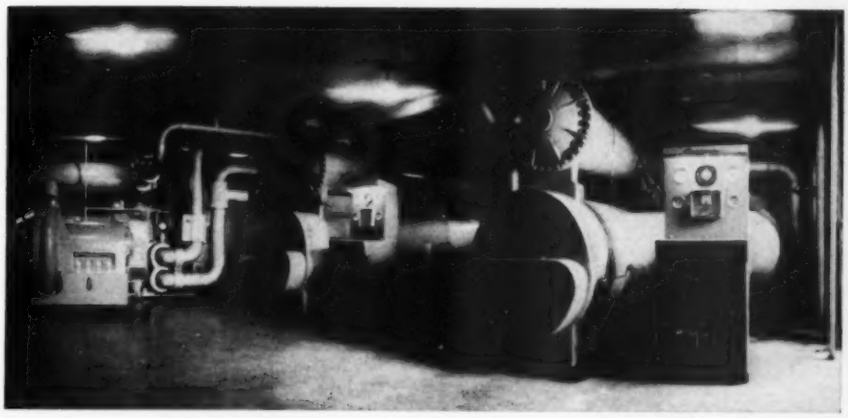
In the new plant, composing and stereotype rooms contain the greatest human occupancy. Here, body heat together with that from lights and machinery adds to existing process fumes requiring continuous exhaust and circulation of fresh conditioned air. In the engraving room, stoves, proof presses, lights, and other equipment give rise to tremendous quantities of heat.

Dissipation of this heat, and the need for humidity control in multicolor registration can become an acute problem without air conditioning. Excess humidity does not permit plates and film to dry. With controlled temperature and humidity uniform conditions can be established and uniform results obtained. The *News* also runs spot color daily with full process color several times per week. Scientifically regulated atmosphere produces more closely refined color rendition and register.

Designed by engineers of Carrier Corporation in collaboration with Weed, Johnson Associates, architects and engineers, the all-season central air conditioning system at the Miami *News* maintains 78 deg. temp. and 50% r.h. throughout the building with the exception of the paper storage room, kept at 78 deg. and 60% r.h. The latter condition prevents raised and corrugated surfaces on newsprint which would result in printing of inferior quality. The former permits efficient operation of high speed business machines.

Of paramount concern to *News* management as well as Carrier en-

gineers was the press room. Not only because of heat (an average press run requires 700-750 h.p.) but problems of ink mist, paper dust, and high humidity, all have an adverse effect upon reproduction, in both image and type, during printing. The three high speed presses located in the press room are capable of producing 135,000 newspapers, of 56 pages, every hour. At this rate, cylinders to which printing plates are attached, revolve at speeds of 375 r.p.m. High speeds of this kind throw into the atmosphere by centrifugal action tremendous quantities of ink and paper dust. In a matter of weeks the combination of ink and paper would actually hang from surrounding walls and ceiling if not removed.



Three Carrier hermetic centrifugal machines (430 T. refrigeration each) furnishes chilled water to 23 separate air handling units located above ceiling throughout the Miami *News* building.

Controlling Ink Mist

To meet this problem five filter units are installed near the ceiling, spaced equally in a line along the center of the press room which now contains 21 units and 3 folders in a single line. Each of the five air cleaning units is equipped with two automatic, self-cleaning, dry-type stainless steel filters with a capacity of 5000 c.f.m. Also, a continuous sheet of two-ply, cellulose filter paper unwinds from a roll at the top and moves down the face of the filter. (Each roll contains 400 ft. of filter paper which lasts approx. 4 to 5 weeks.) The top and bottom are sealed so that all of the air being handled must pass through the filtering media. After the paper accumulates its dirt load, it is automatically re-rolled at the bottom of the cleaning apparatus.

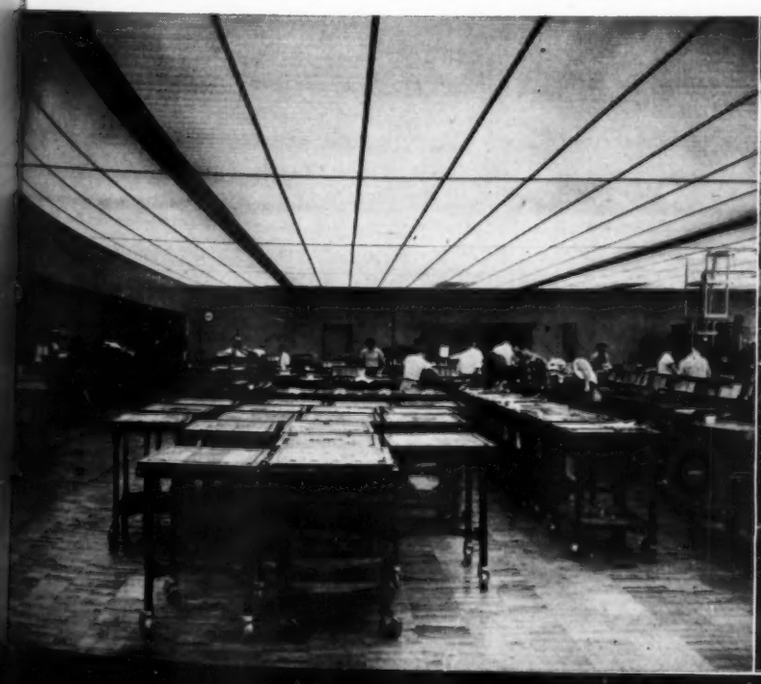
The stainless steel screen and cellulose paper are moved by a fractional horsepower motor working through a gear reducer and chain drive. A pressure switch controls operation of the motor. As the filter media becomes dirty, it offers more resistance to air flow. When this resistance rises to a point coinciding with the setting on the pressure switch, the electric circuit closes, starting the drive motor. When a sufficient amount of clean media has been added, reducing resistance to the proper level, the switch opens the motor circuit and the filter curtain remains stationary until resistance again builds up to the predetermined operating point. This method of controlling filter movement apportions media usage to the amount of ink mist in the air.

Three exhaust fans draw room air through the filter devices into a common exhaust duct and air shaft. Since only filtered air passes through the exhaust ducts, fire hazards and maintenance are reduced. By supplying cool, fresh air from outlets at the base of the wall on either side of the press room, and exhausting it immediately above the presses at the highest possible point, supply air moves up with thermal currents caused by heat from printing equipment. This air then helps channel ink to overhead filters.

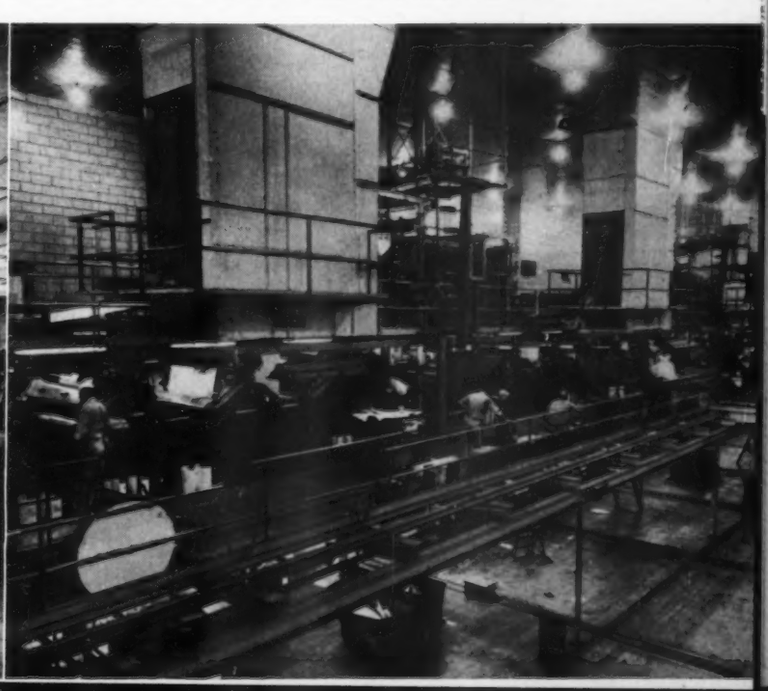
A greater exhaust air quantity is necessary to maintain a negative pressure within the space to avoid ink leakage through doors and openings into office space and other portions of the building. The large quantity of conditioned air supplied to the press room accomplishes a complete air change every 4¼

(*Continued on Page* 91)

Below is shown a view of the makeup department in the composing room of the Miami *Daily News*. Long ceiling outlets distribute conditioned air evenly through the composing room. Controlled temperature and humidity with evenly distributed and shadowless light make it possible to do better, more accurate and faster moving work.



The Miami *News* pressroom contains 21 high speed Hoe press units with three folders. Five large air filters (above the press line) help supplement air conditioning system's removal of ink mist and paper dust—a major problem in all newspaper press rooms. The *News* claims 85% of the ink and dust residue has been eliminated.



This display of job tickets was viewed by members of the Production Managers Section of the Graphic Arts Assoc. of St. Louis at its workshop on job ticketing systems. Each form is identified by an attached 3 in. by 5 in. card indicating name of company using the form and its representative at the meeting.

St. Louis Production Men Discuss Job Ticketing Systems

By MILDRED WEILER, *St. Louis Correspondent*

THERE can be no such thing as a uniform job ticket in the printing industry because each firm has its different operations and equipment. This conclusion was reached by members of the Production Managers Section of the Graphic Arts Assoc. of St. Louis at a recent workshop meeting on the subject of job tickets.

Each of the 18 production managers present, representing large, small and medium sized printers, brought a copy of his company's job ticket to the meeting. A copy of each ticket was also mounted on easel display boards which the group viewed prior to the meeting. Those present divided into two groups and each man described his own job ticket in detail and explained reasons for the system used.

No Uniform Job Ticket

In the discussion that followed it was decided that there is no such thing as a uniform job ticket. However, a number of suggestions were made which could be adapted to the various systems of job ticketing. For example, 99% of those present felt it was important to use a job envelope along with the ticket. This envelope could be part of the ticket itself or attached to it. Only one member did not think a job envelope and ticket would be practical. His company, a bookbinding service, makes a dummy and puts the ticket inside to provide all the information necessary for production.

The group also agreed that the last press sheet from the job should be included in the job ticket envelope and that on a reprint order the previous order number should be mentioned on the reprint for reference. If jobs are work and turn, work and back, or work and roll, this information should be included. It was decided to recommend this idea to the various representative companies where it was not already in use.

Each production manager also resolved to send 30 copies of his company's job ticket to the Graphic Arts Assoc. headquarters. Those who did so would then receive one job ticket from each of the other companies thus providing a file of 30 different tickets. From these could be adapted ideas that would be helpful in various production operations.

The subject of paper skid count and the count on the press came up as a problem which all have encountered since the production department usually names the amount of paper to be used. Too often the skid wrapper, stenciled by the mill as to weight and amount of paper, will not agree with the press count when the paper from that skid is run off. It was recommended to do some research, comparing quantity on paper skids with press runs. Findings will be discussed by the Section at a later date.

A steering committee of 11 men plans the programs for the Production Managers Section workshops which are held every month. The committee members are: Phil Bergsieker, Cavanagh Printing Co.; Walter Blattenberger, Western Printing & Litho Co.; John Curran, Con P. Curran Printing Co.; Paul Groerich, Hallenberg Press, Inc.; Frank Lederle, Nies-Kaiser Printing Co.; John Morris, Keeler-Morris Printing Co.; Ray Penz, Christian Board of Publication; Ray Uhlman, Eden Publishing House; Bob Wunsch, Becktold Bindery; Mike Voertman, Concordia Publishing House, also chairman of the Section, and Frank Rauchenstein, Cavanagh Printing Co., who serves in an advisory capacity representing the board of directors, Graphic Arts Assoc. of St. Louis.

Printing Industry Members Accept R&E Council Program

The Research and Engineering Council of the Graphic Arts Industry, Inc., has announced that the program it has been sponsoring for the development of basic research and graduate study for the Graphic Arts has received support from representative members of the industry.

The Council's committee on printing research recently invited a group of the industry's leaders to attend a meeting at Appleton, Wis., and observed the reaction to the proposed program which would be handled by The Institute of Paper Chemistry.

Because of the general support of the program expressed at the Appleton meeting, the committee has announced another meeting will be held Sept. 30, at which time it expects to double its membership.

The committee, under the chairmanship of Paul Lyle, Western Printing and Lithographing Co., is composed of: Malcolm H. Frost, Book Manufacturers Institute, Inc.; E. J. Triebe, Kingsport Press; C. M. Flint, Charles T. Main, Inc.; and Robert E. Rossell, R&E Council,

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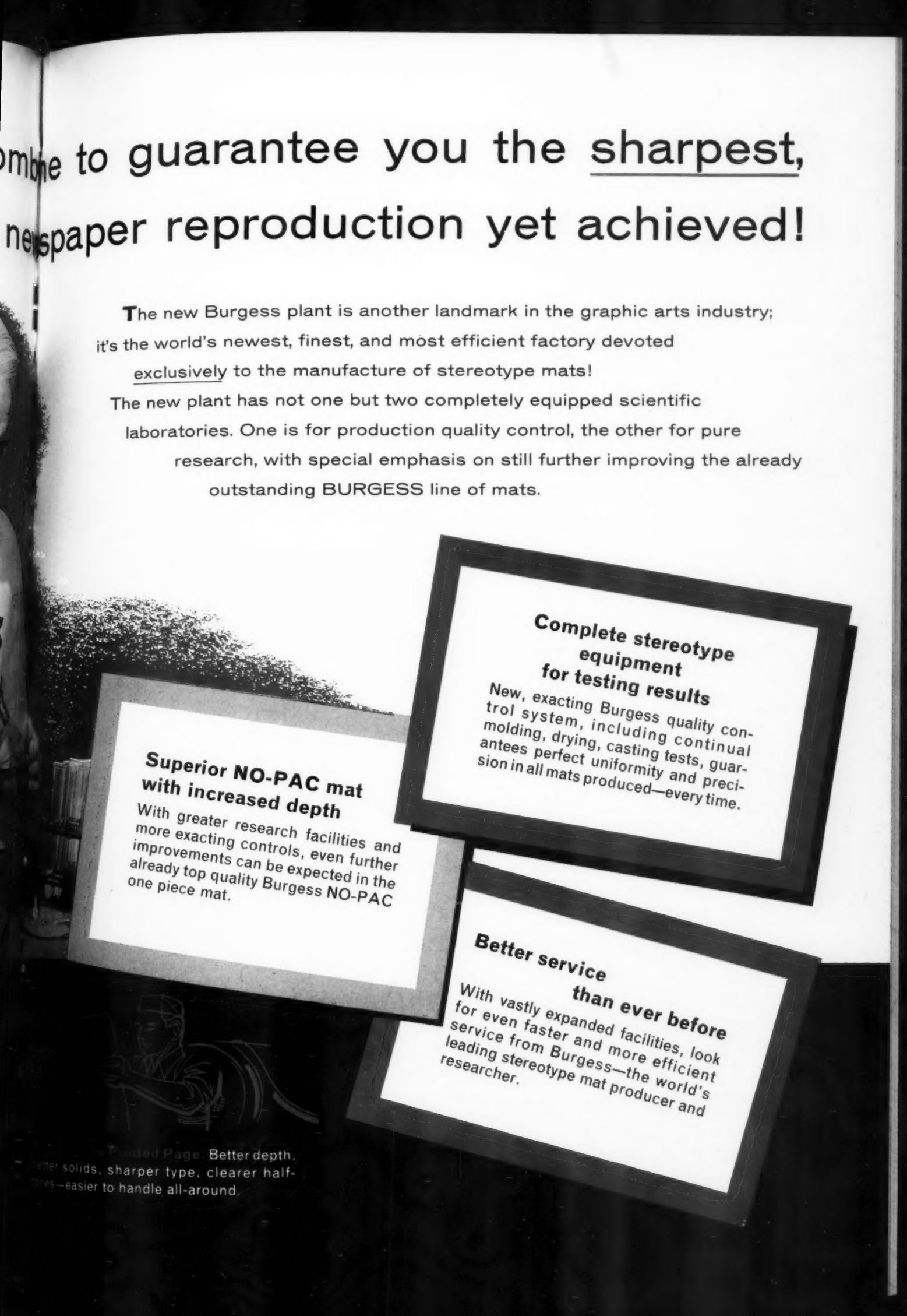

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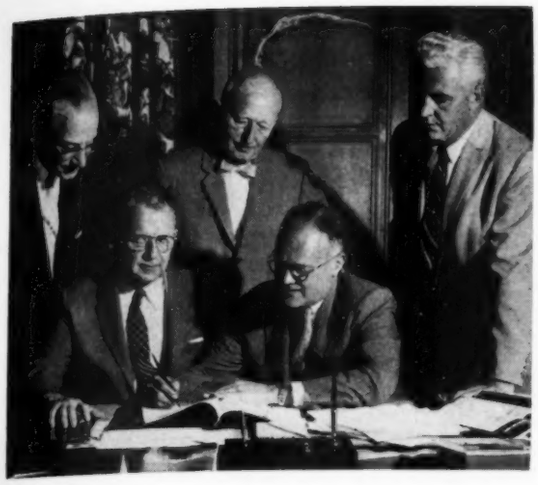


A major pressroom expansion contract for Field newspapers being signed by Marshall Field, jr., seated at right. Seated at left is Robert C. Corlett, Goss Company president; his company will build the new presses and modify existing press units. Standing, left to right are Arthur E. Hall, Chicago *News* general manager; Joseph A. Riggs, Goss executive vice president, and Russ Stewart, Chicago *Sun-Times* general manager.

One Pressroom Will Print Chicago Sun-Times and News

UNDER a major plant and equipment program, two Chicago newspapers will be printed in one pressroom commencing in the fall of 1961. The two newspapers are the Chicago *Sun-Times* and the Chicago *Daily News*. Announcement was made recently by Marshall Field, jr., president of Field Enterprises, Inc. The consolidated printing will be done in the *Sun-Times* building.

The program involves construction and installation of 22 new Goss Headliner press units, 20 new superimposed four-color units and other equipment required for the new presses and modifying 44 units now being operated by the newspaper division of Field Enterprises. When completed, the press room will contain 96 units—66 black units, 20 color units and 10 folders.

Flexibility for ROP Color

Great flexibility in the printing of high quality ROP color is being provided by equipping the press room with specially designed color arrangements that will permit all color printing to be done separately, although in a continuous operation, from the regular newspaper black printing.

Existing presses in the *Sun-Times* building and in the South Side plant of the Chicago *Daily News*, will form the nucleus for the new press room. Removal of presses from the *Daily News* plant and reassembly in the *Sun-Times* press room will begin this fall. Modification of these and the *Sun-Times* presses will proceed during the time the new presses are under construction.

Provision for the new expansion program was made when the *Sun-Times* building was erected in 1957. As in the case of existing presses, the new units will be seated on foundations separate from those of the building, so as to minimize vibration when the press room is in operation.

Arrangement of Presses

The 66 units will be arranged in three rows—two rows of 21 units each and one row of 24 units. Although all of the presses have been designed to print both newspapers, one row will be used primarily to print the *Daily News* and the other two will print the *Daily News* and *Sun-Times* interchangeably.

Existing presses in both newspaper plants, all of which were installed in 1957, will be modified by the addition of superimposed four-color printing units. These are to be mounted above the press rows and will be arranged to handle all of the color printing, thus permitting four separate color impressions on the moving web of paper after the black has been printed.

This system permits flexibility in the use of one or more colors and at the same time provides for the changing newspaper pages, which occurs as each edition is printed.

It was also stated in the announcement released by Field Enterprises that another feature incorporated in the process is a system which permits separate pages of the *Sun-Times* to be changed without interfering with the opposite pages on the same sheet. The system, developed jointly by the *Sun-Times* and the Goss Company, is known as split-plate lockup.

Each of the 66 units in the new press room will be equipped with reel-tension pasters that supply a continuous web of newsprint to the press units at speeds up to 2000 surface f.p.m. Twenty-four of the 66 pasters will be automatic; others require the pushing of a button to put them into operation.

Many safety features will be built into the presses. All moving parts will be enclosed for protection. Lights will flash and a warning bell will sound before the presses begin to turn. A pressman can control the operation from one of several stations located about each press and can prevent a press from moving by pressing one of many safety buttons on any of the units or any of the folders.

Safety for Printing Industry

A session devoted to problems of the printing and publishing industry will be featured at the 47th National Safety Congress, annual convention of the National Safety Council to be held in Chicago, Oct. 19-23. With the convention theme being *Safety in the Sixties*, a member of Printing Industry of America will speak on *Safety in the Sixties for the Printing Industry*. A paper entitled, *Fire Prevention in the Printing Industry* will be presented by Jack Stroube, assistant to the manager, employee activities and safety, R. R. Donnelly & Sons, Chicago.

Star Parts Relocates Agency

The Chicago agency of Star Parts, Inc. recently moved its offices to 603 W. Washington St., Chicago, Ill. A ground floor office and two loading zones, one a truck-high platform for heavy shipments, are available at this location. It was also announced that the phone number of ANdover 3-3423 will remain unchanged.

LTF studies obscure cause affecting bond between lacquer and the copper or the copper and the aluminum plate base.

COPPERIZED aluminum deep-etch plates have become very popular all over the country. Runs of 300,000 to 500,000 are common. We even have had reports of runs close to 3,000,000. However, in spite of the general success of these plates, LTF has received numerous reports of copperized aluminum plates which became blind after less than 20,000 impressions.

After a study of a number of these plates it was reasoned that something was affecting the bond between the lacquer and the copper or the copper and the aluminum base metal. There are several things that can prevent a good bond of the image base to the plate metal. These include incomplete development, moisture on the image areas, and oily materials that may be present in poor grade alcohol or plate washes. These are things we knew about. But, some instances of blinding have been reported which could not be traced to these causes.

In work that followed at the LTF Laboratory, it was found that the deep-etching solution can also be responsible for a poor bond of the copper to the aluminum. Many of the deep-etching solutions used on aluminum plates contain ferric (iron) chloride. When such a solution reacts with the aluminum, part of the iron of the ferric chloride is reduced to metallic iron. In the usual time required to deep-etch a plate, this iron forms an amorphous or powder-like deposit in the image areas which does not hold tight to the plate metal. If not removed, the varying amount of this deposit on different plates is what causes them to become blind at different times.

It is easy to detect this powdery deposit of iron. After development, the image areas are white. During deep-etching with a ferric chloride type of deep-etching solution, the image areas first become gray and with longer deep-etching, almost

Simple Step Called

NICOHOL TREATMENT

Ends one cause of blind deep etch plates

By **CHARLES GRAMLICH**, *Supervisor, Metals and Surface Chemistry Div.*, and **EDWARD J. MARTIN**, *Supervisor, Reduction to Practice Div., Lithographic Technical Foundation.*

black. When the plate is washed with alcohol, a considerable amount of this loose black material comes off onto the paper wipes. Chemical analysis of this black material at the LTF research laboratory showed it consisted mainly of iron.

Press tests showed a good correlation between the quantity of the iron deposit and the tendency of the plate to blind. The longer the plates were deep-etched, the more iron that was deposited, and, if not removed, the easier the plates blinded on the press.

Removing Iron Deposit

The logical next step was to find an easy method of removing this iron deposit left by the deep-etching solution. Such a method should (1) not attack the deep-etch stencil, (2) remove the iron deposit without attacking the aluminum, and (3) not change the surface of the aluminum so that copper would not deposit on it.

Several materials were tested. The best of these was a solution of concentrated nitric acid in a glycol ether solvent. The solution has been named Nicohol and its exact formula has been released to LTF members.

The Nicohol solution is applied to the plate after it has been deep-etched. After deep-etching, the plate is washed with alcohol and rubbed with paper wipes to remove the deep-etching solution. Continue to wipe the plate with paper wipes until it is dry. Then apply the Nicohol solution. Pour on a liberal amount and swab it over the entire plate with a deep-etching pad used for this purpose only. Handle this pad the same as you do during development. Swab the solution on the plate for about 1 min. or until it is evident that all of the iron or gray color in the image has been removed and the image areas are again white. Then wash the Nicohol solution from the plate with more anhydrous alcohol and paper wipes. Following this, copperize the image areas as usual. The copper deposits a little slower and with a slightly different color than on iron. However, LTF found that the copper adheres to the aluminum much better than when the Nicohol treatment is not used.

In photomicrographs of halftone dots on an aluminum plate that have been etched with deep-etch solution containing ferric chloride, deposit of iron in the dots is easy to see. In other photomicrographs, dots that have been

etched with the same solution and then treated with Nicohol are shown to be completely free of iron. Without the Nicohol treatment, iron deposit tends to fill the etched halftone dots.

At the LTF research laboratory, it is customary to make press plates with a number of different treatments on one plate. In this way it is possible to find the advantages or disadvantages of any treatment or any combination of treatments under the same press conditions. (The technique of making such test plates is described fully in LTF's latest platemaking bulletins and in LTF's *Audio Visual No.* 16.) As a result of many press tests of this kind we are able to conclude these things:

Results on Test Plates

(1) The images that resisted blinding best were treated with Nicohol after deep-etching and then copperized, and lacquered with non-blinding lacquers.

(2) In all cases, Nicohol treated areas resisted blinding better than comparable areas not treated with Nicohol.

(3) Nicohol treated areas, followed by lacquer alone look fairly good but are not as ink receptive as when they are copperized before lacquering.

On one such test plate, the right side was given the Nicohol treatment while the left side had the usual alcohol washes without Nicohol. The bottom half of the plate was copperized. A band across the center of the plate was lacquered. This gave us a test plate with eight different treatments on it, as follows: Alcohol only, Nicohol only, alcohol plus lacquer, Nicohol plus lacquer, alcohol plus copper plus lacquer, Nicohol plus copper plus lacquer, alcohol plus copper, and Nicohol plus copper.

The plate was run on the press to get the initial good sheets to show all areas printing satisfactorily. Then it was given a wet wash to remove the ink from the image areas and treated with a 1:64 etch (1 part phosphoric acid plus 64 parts gum arabic solution). The etch was smoothed down, dried, and allowed to stand for 5 min. The etch was then washed off the plate thoroughly with water and more sheets were printed. This treatment was repeated once more. Then it was repeated two more times using the much stronger 1:32 etch (1 part phosphoric acid plus 32 parts gum arabic solution).

Analysis of Treatments

At the end of this series of treatments, it was apparent that certain platemaking methods do not resist this kind of treatment. The image treated only with alcohol was almost completely blind and the one with Nicohol only a little less blind. The copper only images were also very blind with either alcohol or Nicohol as a previous treatment. This shows that copper can be made water receptive by gum.

The alcohol plus lacquer area blinded much more than the Nicohol plus lacquer areas. The best area on the alcohol side was alcohol plus copper plus lacquer but even it was a little blind. The area with the least blinding and the best affinity for ink is the one treated with Nicohol followed by copperizing and lacquer. With such a plate, you can run the ink rather spare to print sharp, clean halftones and still have good coverage for type matter and solids.

This shows how it is possible to check various image treatments. It is one example of how it can be proved that a deep-etched aluminum plate treated with Nicohol and then copperized and lacquered is very resistant to blinding by desensitizing etches and the acids and gums that are usually in fountain solutions.

Some lithographers are using deep-etch aluminum plates which are lacquered but not copperized. Our press tests showed that Nicohol is helpful on such plates also. The area treated with Nicohol and

(*Continued on Page* 66)

NAPL Convention and Exhibit Scheduled for Kansas City, Mo.

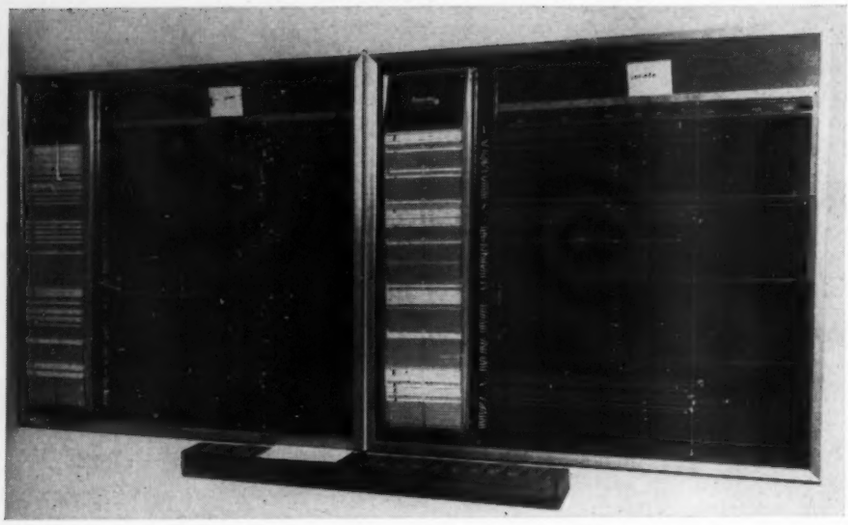
PRE-CONVENTION registration is now open for the 27th convention and exhibit of the National Assoc. of Photo-Lithographers to be held in the Municipal Auditorium and the Hotel Muehlebach, Kansas City, Mo., Nov. 18-21. Over 90 lithographic manufacturers will exhibit new materials, methods and machinery.

Speakers at the convention session will cover a variety of subjects of interest to the lithographic printer. Among them will be: *Offset Papers, Past, Present and Future,* Ronald I. Drake, technical director customer services, The Champion Paper and Fibre Co.; *Magnetic Printing of Business Forms and Checks,* Edward Robinson, vice president, The J. C. Hall Co. and *Controlled Color Proofing Methods,* Martin Grayson, regional manager, Printing Developments, Inc., Sub. Time Incorporated.

Also included in the program are: *Dahlgren Dampening System,* Harold P. Dahlgran, president, Ted Broadston, vice president, Dahlgren Lithographic Equipment Co., Inc.; *Quality Levels in Lithography,* J. Tom Morgan, jr., president, Litho-Krome Company; *LTF Research, A Progress Report,* Otis E. Wells, director, Lithographic Technical Foundation; and *Broadening the Offset Base—A New System,* John McMaster, manager, Graphic Reproduction Sales Div., Eastman Kodak Co.

An all day technical session held on Saturday, Nov. 21, will feature a panel moderated by William J. Stevens, manager, Philadelphia District, The Miehle Company, Div. Miehle-Goss-Dexter, Inc. Panel members will represent research and development, camera and plates, press and paper, ink, and technical and plant procedure. Answers to such questions as: Is it possible to get a sharper or fuller plate by changing exposure time? Can four color process work be run on two color presses of different manufacture? Are paper plates practical for halftone work? What is the latest in wipe-on platemaking procedures, will be offered.

For more information, write National Assoc. of Photo-Lithographers, 317 W. 45th St., New York 36, N. Y. Those in attendance at the convention will receive a revised edition of the *NAPL Blue Book.*



Productrol production control board in plant of Harrison & Smith, Minneapolis commercial printers. All printing jobs are listed by means of the job ticket (below). As the various operations are completed, the spring loaded tapes are pegged to show job progress each day.

Production Control System For Smaller Printing Plants

By HORACE ANNIS, *Minneapolis Correspondent*

RECENTLY introduced to printing companies in Minneapolis and St. Paul, Minn., by Printing Industry of Twin Cities, Inc., is a production control system which affords instant information on the status of all jobs in a commercial plant. Use of only two separate forms is involved.

This Productrol system makes it possible for a girl at the phone switchboard to supply a customer with instant information on the progress of his printing job by means of a pegboard panel occupying a space 3 ft. high and 3½ ft. long.

This system, designed by Herbert Hoover, jr., has been installed in several Twin Cities printing plants. Other plants have made active inquiries as well as preliminary tests of the system.

How System Works

Here is how it works: A pocket file at the left of the pegboard holds job index cards bearing the data on the jobs. The cards are filed vertically with only the customer's name and order number visible. At the right of the file panel are pegs in line horizontally with the order index lines. These pegs, about ½ in. long and 1/16 in. diam., are attached to tapes of sufficient length to reach across the entire pegboard section. The tapes are spring loaded with an invisible spring which makes it possible for the tapes to be extended or retracted in a straight line.

At the top of the pegboard is a space to designate the meaning of the pegs. Below this legend are index legends such as Material Ordered, Composing, Platemaking, etc., clear across to the notation, Shipment Made. Beyond the portion of the pegboard thus marked is another section with divisions representing three months of time with each monthly division ruled for the exact dates. Into this portion of the board go pegs indicating promised delivery dates. A Today tape runs from top to bottom making it impossible to overlook a deadline when it is reached.

When the order comes into the plant a job ticket jacket is filled out with name, order number and other proper information. At the same time, a paper ticket perforated horizontally into sections about 1 in. wide is filled out with the job number and name. Each section of the ticket bears the name of one of the departments through which the order must pass. As each department receives the job, the appropriate perforated section is torn off and spiked at the foreman's desk. At intervals, a girl passes from department to department, picking up these sections. On her return to the office she moves the pegs to the right in the board to register the information on the board from the sections. This shows exactly where any order is at that hour.

The smaller plant executive may choose to simplify the foregoing described operation by omitting use of the perforated job ticket. In this case, the job ticket (below) is removed from the center panel of the control board. It is inserted in the job ticket envelope (upper right) and the envelope and its contents are passed along with the jacket envelope as each department finishes its work. This does not give as close a check from the time standpoint as if the perforated departmental ticket were used, but appears adequate for smaller company operation.

Check on Job Progress

This visual information at once becomes valuable in various ways. For instance, a salesman can walk to the pegboard and tell at a glance whether or not the orders he has in process are making progress which is satisfactory in relation to the delivery date. If he thinks progress is too slow, he can peg in an attention flag so that if the superintendent has overlooked the lag, that individual can spot the delay and remedy the situation.

A peg may not have been moved to the Material Ordered section. A red peg can be set in giving warning to get going. This prevents a job getting lost because someone has placed something over the ticket.

A peg denotes when proof went to customer and if return of proofs is delayed this becomes instantly visible.

The board becomes a goodwill ambassador between plant and customer. When a customer phones to learn the progress of his job, the girl at the switchboard can glance

up at the pegboard and almost instantly give him the information he wants. She may even be able to give him a very close estimate on when the job will be delivered. No more running out into the shop and upsetting a harried superintendent in order to tell the customer what he wants to know in a hurry.

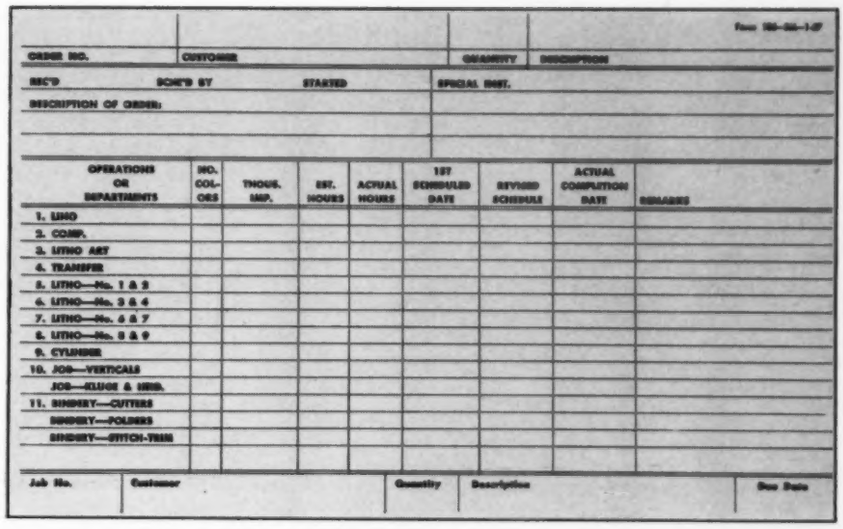
For the production manager, it means getting a maze of detail out of his head and onto the control pegboard so he has time to do the managing and planning job for which he was hired.

A work load chart can be used in conjunction with the control board to indicate at any time just what production facilities are available then or in the immediate future. With this in operation, the salesman can phone the office while consulting with a customer and get quick information as to when the job can be put through the plant—information which might be the difference between getting or losing an order. It also prevents jamups in the plant production schedule.

In addition to these advantages, the system makes for greater accuracy, helps to level off production peaks and makes for a more stable work schedule. Equipment can be kept in steadier operation. Jobs which might otherwise be turned down for lack of time may be sandwiched into the production schedule of the printing plant.

Still another benefit is the convenience in determining more closely the cost figures essential to more profitable operation.

That the system is catching on is evidenced by its use in more than 70 printing plants.


ORDER NO. | CUSTOMER | QUANTITY | DESCRIPTION

REC'D | SCH'D BY | STARTED | SPECIAL INST.

DESCRIPTION OF ORDER:

OPERATIONS OR DEPARTMENTS	NO. COLORS	THOUS. IMP.	EST. HOURS	ACTUAL HOURS	1ST SCHEDULED DATE	REVISED SCHEDULE	ACTUAL COMPLETION DATE	REMARKS
1. LINO								
2. COMP.								
3. LITHO ART								
4. TRANSFER								
5. LITHO—No. 1 & 2								
6. LITHO—No. 3 & 4								
7. LITHO—No. 5 & 7								
8. LITHO—No. 8 & 9								
9. CYLINDER								
10. JOB—VERTICALS								
JOB—KLUGE & MISC.								
11. BINDERY—CUTTERS								
BINDERY—FOLDERS								
BINDERY—STITCH-TRIM								

Job No. | Customer | Quantity | Description | Due Date

In combination with the control board, this job ticket makes up the heart of the production control system. Tickets are inserted in the hinged flaps in the board's vertical panel.

Reproduction of the filled-out front side of the job ticket envelope used by Harrison & Smith. Back of the envelope contains detailed time consumed in operations applicable to a particular job. On the back of the envelope (not shown) are spaces for quantity and cost of paper stocks, sundries, ink, bindery materials, etc. Envelope is heavy white stock and measures 14¾ in. wide by 10 in. high.

CUSTOMER Gamble Robinson ADDRESS Trans 19 Dec. 1959 No. 2103

DESCRIPTION — NEW ☐ REVISE ☐ REPRINT ☐

5000 "Florida Vacation" Folders, 11 x 17, 2 colors 2 sides no bleeds, fold to 8½ x 11

Salesman Jack

Customers No.

Total

Shipped

Receipt No.

JOB PROMISED ☒ Jan. 7

Sheets	Full Size	Weight	Stock Specified—Name—Color, Etc.	Cut to	Out	Up	Requisition		FROM	P.O. NO.	DEL.	Price
700	35 3/4 x 45 1/2	#20	White Primrose Offset (70# opaque) Blue white	11 3/8 x 22 3/4	4	FEB	5960	STK SPL				20.75
	x			x				STK SPL				
	x			x				STK SPL				
	x			x				STK SPL				
	x			x				STK SPL				
	x			x				STK SPL				

COMP. — NEW ☐ REVISE ☐ STANDING ☐ Con. #2103A

Proofs to

TRANS. — NEW ☐ REVISE ☐ STANDING ☐ FEB of form #1 of #2 11¾" Centers

Strip in H/T of plan. on pg 2 upper right panel-reduction

PLATE TICKET

LAYOUT NUMBER

Prints to

☐ ALBUMIN ☐ DEEP ETCH ☐ ALUMINUM ☐ COPPERIZED ☐ TRI-METAL

PRESS — Run Fm B. up on litho Press No. 2 Ink Black and Pink process

Changes

No. To

Press Proofs to

BINDERY — Fold 8½ x 11 | Trim to 11 X 17

Sd'l. St.	Gather
Drill	Tip
Perf.	Cel. St.
Punch	Tin
R'nd. Cor.	Side St.
Pads of	Inspect

SPECIAL BINDING INSTRUCTIONS

ESTIMATED HOURS

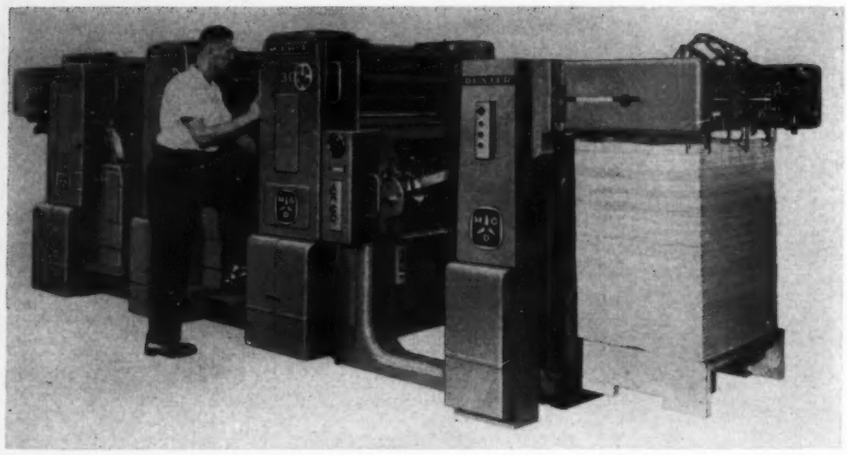
HAND COMP.		HYD. CUT	
MACH. COMP.		CUT	
PROOF READ		BR'KT	
CAM.		A	
TRANS		B	
PHOTO MACH.		C	
LITHO ART		D	
PRESS		SANG STITCH	
		STITCH & TRIM	
		HAND GATH.	
		MACH. GATH.	
		FOLDER	

Outside Pch. & Mfr.	P.O. No.
Env. Making	
Cartons	
Trays	
Tubes	
Tin	
Tape	
Art	
Engr.	
Mount	
Rule	
Cutting Dies	
Gluing	
Binding	
LITHO ART FROM	
DATE ORDERED FOR DEL.	

SAMPLES TO

Ship To Ship Via

PART LOT DEL



The 30 in. Miehle rotary press designed to print from the new wrap-around plates as well as existing curved letterpress plates. It is claimed the two-color press will run at speeds to 7500 sheets per hour.

Wrap-Around Letterpress Among New M-G-D Machines

LETTERPRESS printers visiting the Miehle-Goss-Dexter exhibit at the Graphic Arts Exposition in New York this month saw the first of Miehle Company's two new rotary sheetfed presses designed to accommodate both the new wrap-around letterpress plates as well as curved electros.

The 30 in. press, which was shown to a group of trade press editors in Chicago last month, is rated by Miehle at speeds to 8000 sheets per hr. Its sheet range is 11 in. by 17 in. to 25 in. by 30 in. The second press of this type to be offered by the company this fall offers a size range from 11 in. by 17 in. to 25 in. by 38 in.

View of the wrap-around plate cylinder on the 30 in. Miehle rotary letterpress. The press affords printers a choice of plate cylinders for accommodating either the wrap-around plates or existing curved letterpress plates.

The new type presses were among a dozen new machines for the printing industry to be introduced by M-G-D divisions. Many of these could be viewed in New York during Exposition Week. It was one of the biggest new equipment packages to be placed on the market by a single manufacturer in recent years.

New Equipment Package

Included in the newly-introduced equipment were: the Miehle Lithoprint 20 offset press; Lawson multiple head and single head drills; Lawson 40 in. paper cutter; McCain Saddle-Matic automatically fed stitcher (by Dexter); Miehle four-color offset press (25½ in. by 38 in.); Lawson 46 in., 52 in. and 55 in. Pacemaker cutters; and a Miehle one to six color offset press (54 in. by 77 in.).

The rotary letterpresses have been designed so that the printer can specify the kind of cylinder desired. For example, a two-color press can be installed to print from both the wrap-around and curved plates. One printing unit could accommodate a wrap-around plate; the other a curved electro. They are not interchangeable.

The presses will be available in from one to four colors. Because each color unit is self-contained, additional units may be added to presses after they are in the field.

Inking mechanism of the presses is designed to handle the shallow etch plates without the usual bottoming problem. Among the features are: drive gears in sealed bath of oil; extra large cylinder journals; continuous automatic lubrication systems; motorized feeder and delivery pile hoist; rotative ink drive and inker vibrator timing; and lubrication-free air pumps on the feeder and delivery to prevent oil-soiled sheets. An independent sheet transfer system between color units has been developed for accuracy of register at high speeds.

Newly-Designed Lithoprint

The Miehle Lithoprint 20 is a newly-designed small offset press for handling sheets up to 14 in. by 20 in. at rated speeds up to 7500 i.p.h. Forms on this press may bleed on all but the gripper edge.

Among its features are: chain delivery; full pile feeder and delivery; ink resistant chromed cylinders; constant relationship between plate and blanket cylinders. Also, self-compensating cylinders regardless of stock thickness; self-locking delivery side joggers; and form roller adjustment outside the frame.

The Lawson Hi-Speed multiple head drill is equipped with two drill heads and rated at a speed of 30 strokes a minute. The new Series B machine will drill, or drill and slot in one operation, two or more holes in a full 2¼ in. lift in what the manufacturer has timed at 2 sec.

The fixed table enables the operator to maintain a fixed feeding position while drilling. Maximum distance between centers of holes is 19¾ in.; minimum distance is 1¼ in. with one right and left-hand head.

An official of the Lawson Company mentioned that an automatic indexing model of the Hi-Speed drill, specifically designed for quantity drilling of sheets 11 in. by 8½ in. and smaller, will be introduced at an early date.

An automatically fed saddle

stitcher designed for medium sized plants, known as the McCain Saddle-Matic, is a product of the Dexter Company. It is said to provide speeds from 2500 to 5000 signatures an hour with one person operation.

Four Paper Cutters

Fifty strokes a minute operation is claimed for the heavy duty hydraulic clamp paper cutters added to the Lawson Pacemaker line. Three new sizes include the 46 in., 52 in. and 55 in.

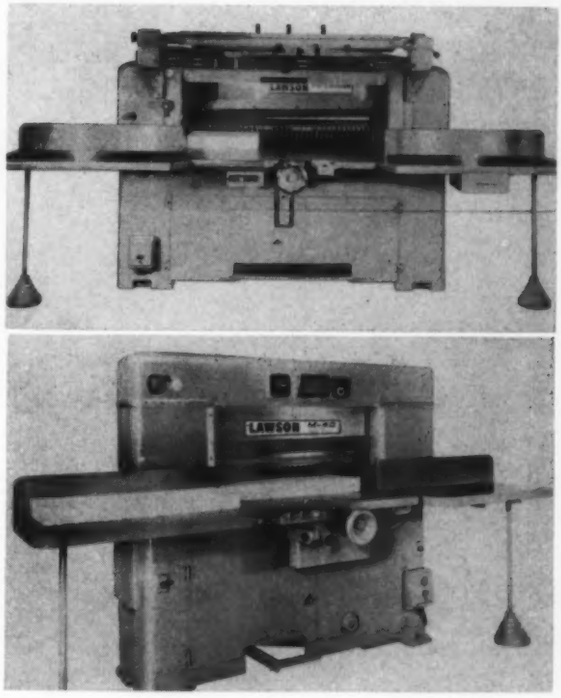
New features on these cutters include: rear table slot closing device to facilitate rear loading or swinging the lift; two-end knife pull utilizing a double crank design; three-point knife bar support to help prevent bowed or concave cuts; and double overload and non-repeat safeties.

A 5 in. wide clamp is said to descend under minimum pressure so as not to mar top sheets in the lift. A pressure interlock system prevents the knife from starting to cut before full pre-selected clamping pressure has been applied. The adjusting knob and pressure gauge are at eye level on the front of the machine for operator convenience.

Another new cutter by Lawson will be known as the M-40 which features a 6 in. clamp opening and a reported 60 stroke a minute knife speed.

Uneven cutting is eliminated, states the sponsor, by means of what is described as a two-end knife pull and a new knife bar design which permits the knife to be pulled from the line of cut. The cutter's clamping means have been designed to hold the lift firmly without marring top sheets or disturbing the alignment of the lift. Many features mentioned for the new Pacemaker cutters are included in the M-40.

The Lawson Hi-Speed multiple head drill is equipped with two drill heads and rated at a speed of 30 strokes per minute.



At top is the Lawson Pacemaker cutter now offered in three new sizes—46 in., 52 in. and 55 in. This model (the 52 in.) is shown with the company's electronic spacer attachment. Fifty strokes a minute operation are claimed for the new models. Below is the new Lawson M-40 hydraulic cutter which is rated at 60 strokes a minute operation. One feature is a 6 in. clamp opening.

The new Miehle 25½ in. by 30 in. four-color offset press consists of two common impression cylinder units of two colors each. It will deliver at reported speeds of 7000 sheets per hour. (See PRINTING PRODUCTION, August 1959, page 97.)

Sheets up to 54 in. by 77 in. can be handled on the new Miehle 54/77 offset press, available in from one to six colors. It will print at rated speeds from 3300 to 6000 sheets per hour. (See PRINTING PRODUCTION, August 1959, page 109).

Printing Industry Personnel Education Report Available

A report entitled *Supervisory Personnel Development Programs in the Graphic Arts Industry* has been released by the Education Council of the Graphic Arts Industry, Inc. Report contains over 25 articles on recruitment, selection and training of potential supervisory personnel. It was written for the 3rd annual Invitational Conference of the Education Council for Personnel and Training Directors held in May, 1958.

Copies of the report are available at $25 to non-members of the Educaion Council; $22.50 to contributing members; no charge to participating and sustaining members. Write to: Education Council of the Graphic Arts Industry, 5728 Connecticut Ave., N. W., Washington 15, D. C.

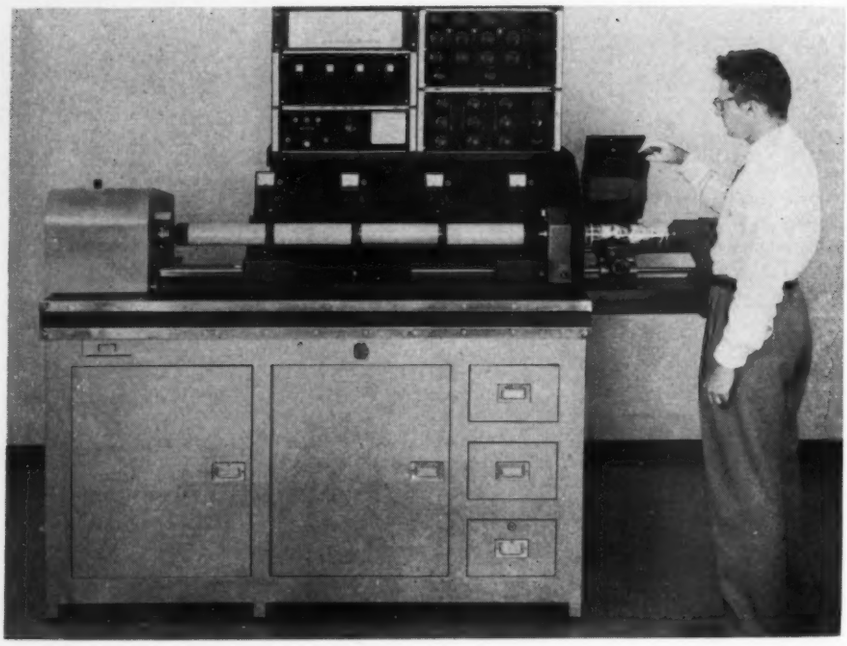
Graphic Arts Educators To Combat Labor Shortage

A skilled labor and office personnel shortage by the end of 1959 was a forecast in *Fortune Magazine* and the *Kiplinger Washington News Letter*. These forcasts were based on statistics concerning available workers released by the United States Department of Labor.

According to Leslie C. Shomo, president, Education Council of the Graphic Arts Industry, the Council's program to provide school and college guidance counselors with up-to-date career literature concerning the Graphic Arts industry will assist employers to obtain qualified new personnel. One step of the program is to send over 30,000 announcements of the 1959 printing and publishing industry National Scholarship competition to schools and colleges in September.

A second phase of the Council's program has been designated SCIP for Sponsored Career Information Packet program. The Council will mail to schools each month during the school year, in the name of the sponsoring printer, information describing career opportunities.

Employing Printers who wish to become a school sponsor should write the Education Council of the Graphic Arts Industry, 5728 Connecticut Ave., N. W., Washington 15, D. C. Include name and address of the school it is desired to sponsor.



Prototype model, Fairchild color separator. Machine has been named the Scan-A-Color.

Electronic Color Separator Makes Positives or Negatives

By ROBERT BRUNHOUSE, *Fairchild Graphic Equipment, Inc.**

THE Fairchild Scan-A-Color is an electronic device which will produce simultaneously a set of fully color corrected continuous tone separations on film in less than an hour, in negative or positive form. These color separations can then be used to produce printing plates by any one of the etching systems.

Regarding status of the equipment, the prototype has been completed and tested. The first production models will be available in 1960.

The story of the development of the Scan-A-Color is one of the development of scanning techniques, electronic control of the photographic process and color correction through use of the analog computer.

The Scanning Assembly

Let's discuss the scanning assembly first. This part of the mechanism collects the needed information contained in the copy. It performs the color separation function, and it converts light into electrical energy. Picture in your minds a typical piece of copy. The scan starts at one corner and literally scans a line down to the bottom of the image. Then it scans the second line. There can be no overlap nor any area omitted. The scanning is continued line-by-line until the entire copy image has been covered. There is a choice of three different widths of scan lines on each machine.

This enables the operator to select the most appropriate type of scanning to benefit the always important time factor in the production of a job. A scan of 200 cm. per in. permits greater enlargement ratios, but takes much longer on the scanner. By the same token, if the job requires a reduction, a scan other than 200 cm. can be used with a saving of time.

The original copy is placed in position around a transparent cylinder, and a rotary scan is employed. If the original copy is a transparency, such as Ektachrome or Anscochrome, it must, of course, be illuminated by a light passing through it. The light source is beamed through the transparency into the lens system of the scanner. In addition to transparencies, however, this equipment also handles unmounted reflection copy. When reflection type copy is scanned, a spot of light is projected onto the surface of the copy and it is reflected back into the lens of the optical system.

From this light, the apparatus learns the hue, brightness and saturation of the colors being scanned.

Separating the Colors

The next function of the scanning assembly is to separate colors. The light entering the optical system is divided into three beams, each passing through a standard separation filter and then striking the surface of a photoelectric tube. At this stage, the final act of scanning takes place. In these tubes, the light energy is converted to electrical energy. As scanning occurs, there is a continuing output of three electrical currents, each representing one of the primary colors and continuously proportional to the amount and quality of that color.

The photoelectric tubes supply the color information to the electronic computer. To describe in detail the computer electronics would be overly technical. Rather, let us describe what functions this section of the scanner performs and relate these functions to the value they have in color correction.

To go from an original piece of color copy to a set of high quality color corrected separations requires the accomplishment of a number of things. One of the most important of these things is compression. Two things must be compressed. One is color brightness, and the other is color saturation. This is always true in the case of working with transparencies and frequently true also when working from reflection color originals.

The Ink Problem

Another problem in color correction is that occasioned by its color characteristics of filters, and lights used in a reproduction system, which do not correspond exactly with the primary colors used in the printing process—that is, the inks.

*Abstract of address delivered before 13th Congress, International Photoengravers, Monte Carlo, Monaco, May 1959.

This is a problem which also exists in present photographic separation and correction techniques and for which experienced color engravers have developed their own methods for correction. This kind of correction is built into the Fairchild Scan-A-Color.

Process color inks themselves introduce serious problems. The inks are not pure primary colors, nor do they correspond with each other in their brightness ranges. There are unusually flexible controls provided by the Fairchild computer to correct for these ink characteristics.

Another valuable feature of the Fairchild Scan-A-Color is its ability to control the printing value for each color. This can be done for a particular area such as a flesh tone or, perhaps, a specific product in a piece of copy. Through dial settings, the operator can control the printing strength of individual printing primaries to effect what in his judgment indicates is the best interpretation for quality reproduction.

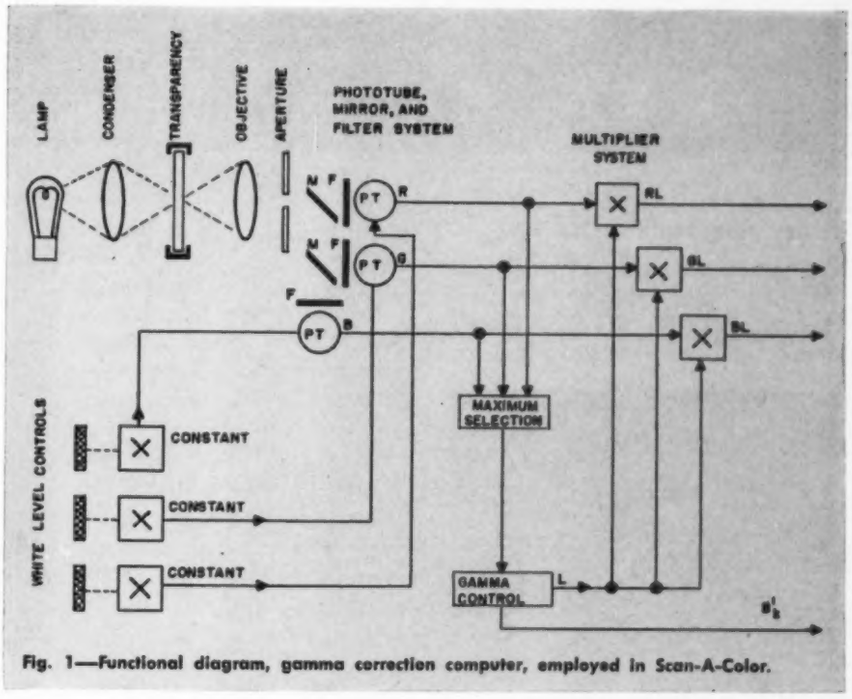


Fig. 1—Functional diagram, gamma correction computer, employed in Scan-A-Color.

Preparation of Black Printer

One of the most important elements of color correction is the preparation of an appropriate black printer and the calculation of the correct undercolor removal for the black printer selected. The Fairchild equipment provides a wide degree of variability in the choice of black construction and in obtaining special undercolor reduction treatment.

This means that it will not be necessary to accept undercolor treatment at fixed ratios.

Meeting Process Requirements

The scanner will electronically expose the separations so their densities will accurately meet processing requirements. Minimum densities can be anything from .15 upwards, while the maximum densities can be anything from 2.0 downwards.

The separations can be adapted to long flat etch techniques or to the new powderless etch methods. They can be adapted to conventional gravure or to the Dultgen method.

The fundamental controls designed into the computer portions of the Scan-A-Color provide:

(1) A control for the printing strength of each reproduction primary within the interpretive judgment of the operator.

(2) Compression of color saturation and color brightness.

(3) Compensation for color impurities and brightness limitations of the process inks.

(4) Correction for the color unbalance of filters and lights in relation to the process inks.

(5) Selection of undercolor removal and computation for the black printer.

(6) Selection of appropriate densities.

(7) Provision for either positive or negative separations.

Having applied these various controls to the three signals which we obtained out of the scanning portion of this entire system through electronics, we are now ready to record the information which has been obtained and modified. By this time, of course, through the calculation of undercolor removal, we have created a fourth signal representing the black printer. We are now ready to record this information into some usable form. Electrical energy is converted back to light energy and is beamed on to photographic film which is then developed and used in the conventional manner.

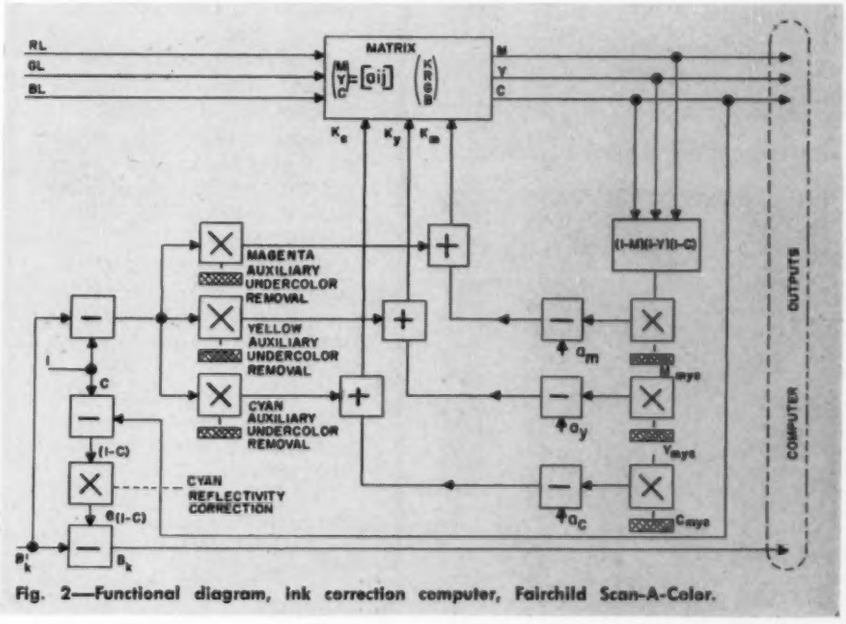


Fig. 2—Functional diagram, ink correction computer, Fairchild Scan-A-Color.

PRINTING PRODUCTION's IDEA FILE

SHORT CUTS · TIME TRIMMERS · HELPFUL HINTS · MONEYSAVING IDEAS · IDEA SWAPPING · GIMMICKS & GADGETS · TROUBLE ELIMINATORS

CHASE SIDE STICK LIFTER

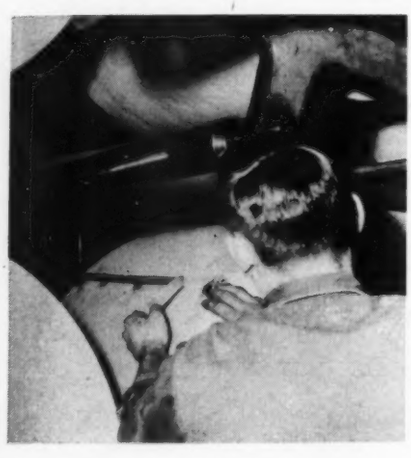
A newspaper chase side stick lifting tool was designed by Carl Hampton of the Brinkley (Ark.) *Argus*. The tool was made from

1/8 in. cold rolled steel. Its length is 7 in., it is 1 1/4 in. at the widest part. A notch in one end to enable engaging the side stick is 5/16 in. deep about 1/4 in. from the extreme end. The side sticks were notched at the lower column end to permit the hook on the tool engaging the lip of the side stick. The lifter is far superior to makeup rule or fingernails. — *Franklin H. Elledge, mechanical superintendent, Brinkley (Ark.)* Argus.

SAVES SPLICING TIME

A saving of time in press runs is realized by the Williams Press, Chicago Heights, Ill. This firm prints four newspapers. A two sided pressure sensitive adhesive Dubl-Stik tape is used to splice a fresh roll of newsprint to the expiring roll prior to feeding the new roll into the press.

The tape forms a bind without overlap and saves approx. 15 min.



a night, according to Elmer Lages, pressroom foreman. "We are using the tape to bind together butt end rolls which are left from a press run. When bound together these spliced remnants make a new roll which can be run through the press," he said.

HANDLING OFFSET BLANKETS

Improper washing can ruin a blanket. It is best to use both hands, wetting with one and drying with the other.

An enemy of your blanket is oxygen. The antioxidant manufactured in a blanket can be removed by some blanket washes. Inks with cobalt driers hasten oxidation of the rubber.

Scrubbing with pumice and Lestoil every night aid blanket life. Never use type wash, kerosene or turpentine.

Don't be lazy and put squeeze on the impression cylinder when blanket packing can do the job.

Tearing tissue patches instead of cutting them will keep the edges from showing.

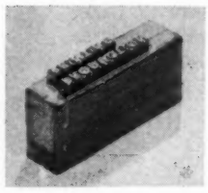
If you must soak a smashed blanket to take care of some of the damage, do not use kerosene or turpentine. Water will do just as good a job, without the danger of rusting the cylinders.

Use of a micrometer, such as the LTF Blanket Thickness Gauge simplifies the selection of proper packing sheets. Always gauge the thickness of new blankets since excess tension when on the cylinder may reduce its thickness.

Do not use a blanket for more than a week at a time unless you are involved in a long run requiring close register. Try to use two or three blankets on a press during the course of a week. And most certainly, always have an extra blanket on hand should something happen to the one on the press.—*Reprinted by permission from* Harris Impressions, *published by Harris-Seybold Company.*

EMERGENCY RUBBER STAMP

In cases where a rubber stamp cannot be obtained quickly, an emergency substitute can be made by setting the type on slugs. The slugs can then be cut to either shell or 16 ga. height on a saw-trimmer or stripping attachment. The trimmed slugs are then fastened to a wood block with two-side Scotch tape. In certain instances, in commercial work, the stripped slug or slugs may be fastened at an angle with the adhesive tape.—*Harry Brentlinger, composing superintendent, Terre Haute (Ind.)* Star *and* Tribune.



GUMMED STOCK REMNANTS

When cutting gummed stock remnants of 2 in. or more, pad these at both ends to keep them flat. When you need gummed stock in small sizes, simply trim off the ends and your stock is flat ready for printing.—*Emery J. DeMers, foreman, Carthage (N.Y.)* Republican-Tribune. *Courtesy Kimberly-Clark Corporation.*

For the Reader

A chance to be paid for ideas which have netted savings in time, money and effort in your printing plant is offered readers of *Printing Production*. If your idea is considered worthwhile it will be printed in the Idea File, a regular *Printing Production* feature, and a check will be mailed to you.

Simply write down a description of the idea; be as complete as possible in your explanation. Include a photo or drawing if you think it will show the helpful idea better. Additional payment is made for items accepted with pictures.

Send as many as you wish to: Idea File Editor, *Printing Production*, 1276 W. 3rd St., Cleveland 13, O.

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with automatic roller applied contact screen

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- Has single knob film control
- Has new guillotine type cut off knife
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For More Information Circle 40 on Reader Service Card

PNMC Program Committee members are, seated, left to right: Fred Moyer, sr., secretary, southern division, PNMC; G. B. Burke, production manager, San Diego (Calif.) *Union Tribune*, president, PNMC; Charles Gallagher, press superintendent, Rodgers-McDonald Publishers, Inc., Los Angeles, committee chairman; William Harris, composing room superintendent, Los Angeles *Times*. Standing: Werner Sell, production manager, Long Beach (Calif.) *Independent-Press-Telegram;* Vernon Spitaleri, Sta-Hi Corporation; Jack Glenn, pressroom foreman, Santa Monica (Calif.) *Outlook*.

Pacific Conference to Study Production

Executives of daily, weekly and non-metropolitan western newspapers will meet on Sept. 25-27 to discuss mutual production problems at the Hotel U. S. Grant, San Diego, Calif. It will be the 23rd annual Pacific Newspaper Mechanical Conference. Included will be mechanical exhibits featuring the latest in equipment and supplies for the newspaper industry.

Nine forums have been programmed to interest production executives, foremen and suppliers of every newspaper mechanical department.

ANPA Committee Speakers

The opening session on Friday, Sept. 25, will include an address by James Copley, The Copley Press Inc., member of the ANPA Mechanical Committee. He will speak on *The Future of Newspaper Production.*

A retail advertising forum, picture and slides session, and a mailroom forum will be held on Friday afternoon. Chairman of the mailroom session is Donald Newhouse, Portland (Ore.) *Oregonian*, and a member of the ANPA Mechanical Committee.

Donald Weber, Houston *Chronicle*, another ANPA Mechanical Committee member will speak at the national advertising forum to be held Friday evening. His subject will be *Playing For High Stakes—ROP Color.*

Saturday morning will be devoted to a stereotype session followed by a composing room forum Saturday afternoon. Speaking on *Cold Type* at the composing room session, will be Richard Lewis, manager, Mechanical Dept., ANPA Research Institute.

Lewis will also speak at the pressroom forum that afternoon. His subject will be *Standardization of Color Inks.* A machinists' session is also planned for Saturday afternoon.

Various phases of engraving including a discussion on fast etch are planned for the engravers forum to be held Sunday morning. Also scheduled for that morning is a session for non-metropolitan, tubular and publication houses. Included will be a general discussion regarding troubles arising due to replacement of outmoded machinery, and color problems.

More information about the conference may be obtained from Fred J. Moyer, sr., secretary, Southern Division, Pacific Newspaper Mechanical Conference, 6630 Mayflower Ave., Bell, Calif.

ANPA Reorganizes Committee to Serve Mechanical Needs

Appointment of a new Mechanical Committee of the American Newspaper Publishers Assoc. has been announced by D. Tennant Bryan, ANPA president. Reappointed chairman was George F. Marshall, Portland (Me.) *Press-Herald* and *Express.* W. R. Coddington, Detroit *Free Press,* continues as vice chairman.

Newly appointed members are: E. L. Burgess, La Crosse (Wis.) *Tribune;* Charles N. DeRose, Northampton (Mass.) *Hampshire Gazette;* Donald Newhouse, Portland (Ore.) *Oregonian*; Hy Shannon, Chicago *Sun-Times;* and Joseph L. Woods, Hartford (Conn.) *Times.*

Reappointed are: John N. Barron, LaSalle (Ill.) *News-Tribune;* James S. Copley, The Copley Press Inc., La Jolla, Calif., Julian J. Eberle, Miami *News;* David K. Gottlieb, Davenport (Ia.) *Democrat* and *Times;* James Harrison, Toronto (Can.) *Globe* and *Mail.*

Also: George W. Helm, jr., White Plains (N. Y.) *Reporter-Dispatch;* Harold R. Hoots, Decatur (Ill.) *Herald* and *Review;* George P. Kunz, South Bend (Ind.) *Tribune;* J. Harold Mintun, Pittsburgh *Press;* A. E. Rosene, St. Paul *Dispatch* and *Pioneer Press;* Harry Sloan, New York *Mirror;* and Donald V. Weber, Houston *Chronicle.*

Nicohol Treatment

(Continued from Page 57)

lacquered resisted blinding much better than the area that was just washed with alcohol and lacquered.

The Nicohol treatment can also be used on deep-etched zinc plates.

Other Blind Plate Causes

We believe that the powdery deposit of iron left in the image areas of deep-etch plates is easily loosened by the acids in etches or strong fountain solutions and is one of the main causes of early blinding on the press. However, there are other reasons why deep-etch plates sometimes go blind. For example, deep-etch plates may go

blind if they are not completely developed. In this case, a thin film of gum arabic remains on the image areas. The lacquer or copper does not adhere as well to the base metal. Blinding due to this cause usually appears early in the run. Incomplete developments can occur when the development time is too short or when the Baume of the developer is not adjusted for a deep-etch coating that has become too hard due to too much dark reaction before the plate is developed.

The use of an inferior grade of anhydrous alcohol or other plate wash can also cause a deep-etch image to walk off. Some alcohols and plate washes leave an oily deposit when they evaporate. Such an oily film in the image wells can prevent the lacquer from forming a good bond to the copper or to the base metal.

A simple test is used at the LTF laboratory for anhydrous alcohol or plate washes. A few drops of it are placed on a clean piece of glass. It is then allowed to evaporate with the help of a fan. The glass is then checked for any oily film which remains. Washes that contain oily materials should not be used as a final wash.

Moisture Causes Blinding

Another cause of image blinding is moisture on the image areas at the time lacquer is applied. In humid weather especially, plates should be fanned for several minutes before lacquer is applied. In such weather, the last alcohol wash should be completely removed from the plate with paper wipes before the fan is turned on. If you have a considerable amount of alcohol on the plate when you turn on the fan, the evaporation of the alcohol cools the plate. If the relative humidity is very high, the plate can be cooled to the dew point. Then, moisture in the air will condense on it as it does on the outside of a glass of ice water. Lacquer applied to a plate with such a film of moisture on it, cannot bond properly to the copper or the base metal. It cannot bond properly even if the condensed moisture is allowed to dry first because the base metal in the image areas oxidizes or corrodes as the water evaporates.

Still another cause for the ultimate blinding of deep-etch plates is wearing due to abrasive material in the ink or paper coating, or to overpacking between the plate and the blanket. Blinding from these causes usually takes place later on during a long run.

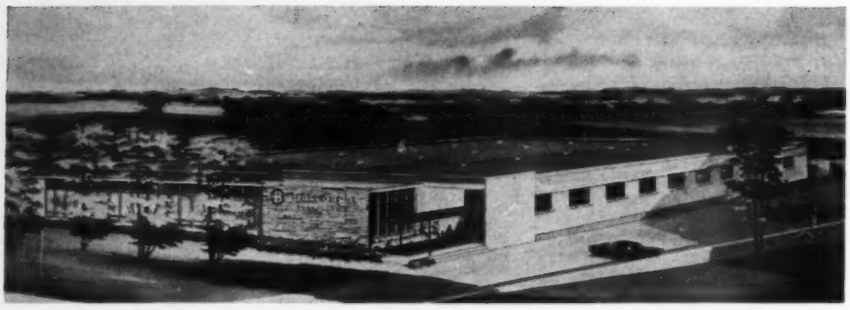
Naturally, if any of these are causing plates to go blind, the use of Nicohol will not cure the trouble.

While there are several causes for blind deep-etch plates, we believe that one of the most important is the formation of a loose, powdery deposit of iron which remains in the deep-etched image wells. The deposit results from a reaction between the plate metal and the ferric chloride in the deep-etching solution.

It is possible to remove this deposit of iron with the LTF Nicohol Solution.

Aluminum deep-etch plates which have been given a Nicohol treatment following deep-etching, and then copperized and lacquered show a remarkable resistance to blinding on the press. The regular use of Nicohol should improve the average life of deep-etch plates.

For More Information Circle 93 on Reader Service Card



This is a drawing of the new East Central plant of the Todd Company Div. of Burroughs Corporation, in Colerain Township, near Cincinnati.

Todd Co.'s Two New Plants for Bank and Business Printing

TWO new branch printing plants, latest in a continuing modernization program, have been put in operation by the Todd Company Div. of Burroughs Corporation. Located near Philadelphia and Cincinnati, the new plants consist of modern one-story buildings costing about $1 million. These are two of the division's 12 plants in various cities. The home plant and offices are in Rochester, N. Y. Todd produces checks and accounting forms for banks and businesses.

Both of the new plants are located in suburban areas with ample parking facilities and ready access to transportation routes. The Mid-Atlantic plant is at Fort Washington Industrial Park on the Pennsylvania Turnpike northwest of Philadelphia. The East Central plant is in Colerain Township, on the outskirts of Cincinnati.

Physical Capacities of Plants

In the Mid-Atlantic plant some 40,000 sq. ft. manufacturing space is provided for 130 employees on a 5 A. site.

In the new East Central plant there is 30,000 sq. ft. production area for its 100 employees. Its production potential is about 50% greater than the former plant.

Production processes in these plants, while using both letterpress and offset equipment, involve the use of specially designed presses and substantially modified standard equipment. Standard presses in operation are offsets ranging from 17 in. by 22 in. to 28 in. by 42 in., plus a variety of types of presses for relief printing.

Layouts of the two plants are similar and include the following departments: Art, photo, platemaking, offset, composing, letterpress and offset presses, bindery, semi-finished stock, finished stock, raw stock, wrapping, shipping and scrap disposal. In addition they have modern offices, cafeterias and infirmaries.

Outstanding Plant Features

Most outstanding feature of the new plants from the standpoint of production is highly efficient communications and materials handling between departments, a welcome contrast to the problems presented by these activities in the former multiple floor buildings. After occupation of the East Central plant, production is up more than 12% and a similar increase has been recorded at Mid-Atlantic.

Constructed with curtain outer walls, the buildings are readily adaptable to expected future expansion. More than adequate visibility is provided with fluorescent, 60 footcandle power lighting. Factory floors are concrete and office, cafeteria and infirmary floors are asphalt tile. Offices are air conditioned, with humidifiers in the factories.

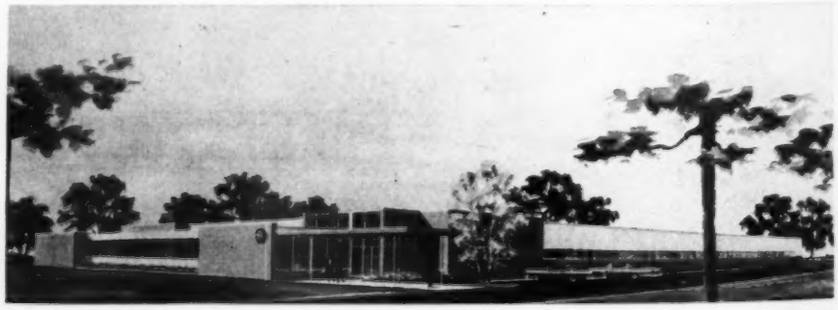
Equipment additions since the new plants went into operation include offset, relief and cutting equipment to permit production of checks on larger sheet sizes. Included is contemplated new equipment to provide for the Burroughs automation program for use by banks.

Printing production for the division is headed by A. Richard Todd, director of manufacturing. Jack N. Friedman is general printing production manager, with responsibility for all 12 printing plants. Under Friedman are eastern and western production managers—Robert E. Carter, responsible for eight eastern plants, and Gordon E. Minter, responsible for four western plants.

Times-Mirror Scholarship

A $4000 four-year scholarship for a high school graduate entering the field of printing management has been established by the Times-Mirror Press of Los Angeles, according to Harrison Chandler, vice president.

The scholarship, to be given on the basis of a national competitive examination, will be awarded under the auspices of the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry. Called the Times-Mirror Press Scholarship, it is in the amount of $1000 per year for four years of study at Los Angeles State College. High school graduates desiring to apply should write to the Education Council of the Graphic Arts Industry, 5720 Connecticut Ave., N.W., Washington 15, D. C.



Architect's drawing shows new Mid-Atlantic plant of Todd Company Div. of Burroughs Corporation, Fort Washington Industrial Park, northwest of Philadelphia.

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For More Information Circle 21 on Reader Service Card

How to Make a Pressman's Hat

REQUESTS for instructions regarding the making of paper hats usually worn by men who work in newspaper press and mail rooms come to PRINTING PRODUCTION at infrequent intervals. Recently we received another request for making the hats.

Not being skilled in the art, we went to Fred Roblin, associate editor of *American Pressman.* Roblin forwarded the information to us promptly. The accompanying illustrations and captions were printed in the July 1955 *American Pressman.*

Credit is given for source of the material to *Triangle,* a house organ published by and for personnel of International Textbook Co., and its divisions—The Haddon Craftsmen and International Correspondence Schools, Scranton, Pa.

Richard J. Jordon, secretary of Scranton Printing Pressmen and Assistants' Union, No. 119, in collaboration with Training Director Kenneth Gromlich, Illustrating Director Boyd Alvord with an assist from Edward Miller, who is a cylinder pressman, all contributed to preparation of these instructions.

Primarily, newspaper pressmen wear these hats because of what is called ink mist which permeates the air when presses are running at high speed. However, some progress is now being made by air conditioning engineers in providing filter equipment which reduces ink misting by as much as 85%. The ink manufacturers also are working on the problem.

To the uninitiated, some time and energy will have to be devoted to the art of making a paper hat. Most pressmen seem to have the knack of making in succession the various folds required. So don't get discouraged when trying to make your first hat.

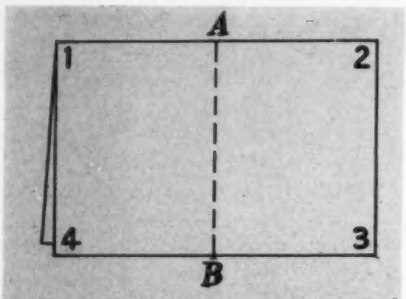


Fig. 1—Lay a single sheet (4 pages) of folded regular size newspaper on a flat surface with lengthwise fold along the top as shown at 1 and 2. Dotted line A-B represents crease mark down center.

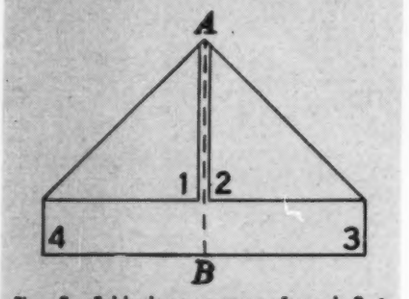


Fig. 2—Fold down corners 1 and 2 to center crease as shown.

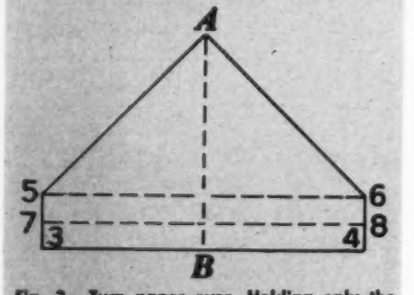


Fig. 3—Turn paper over. Holding only the outside sheet, fold up corners 3 and 4 to position 5 and 6. Crease along dotted line 7 and 8. Fold up again and crease along dotted line 5 and 6.

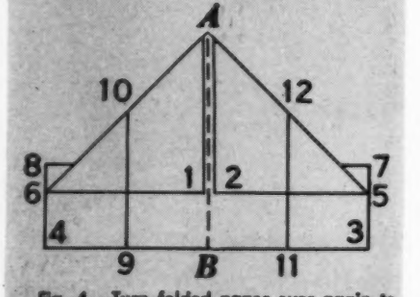


Fig. 4—Turn folded paper over again to original position. Fold side 4 and 8 over to crease A-B. Crease along dotted line 9 and 10. Fold side 3 and 7 over to crease A-B. Crease along dotted line 11 and 12 as in Fig. 5.

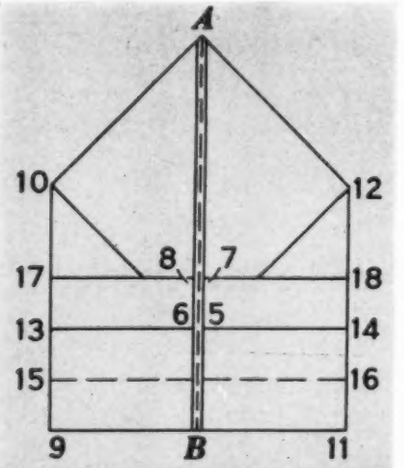


Fig. 5—Fold corners 9 and 11 up to 13 and 14. Crease along dotted line 15 and 16. Fold up again and crease along line 13 and 14. Next, tuck side 9 and 11 down under side 17 and 18 as in Fig. 6.

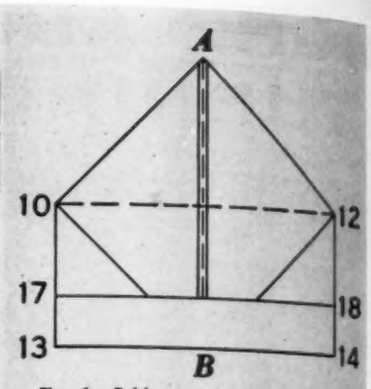


Fig. 6—Fold corner A down and crease along dotted line 10 and 12. Tuck point A under side 17 and 18 as in Fig. 7.

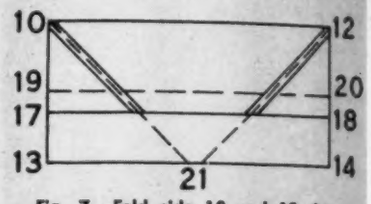


Fig. 7—Fold side 10 and 12 down to 13 and 14 and crease along 19 and 20. Unfold to original position. Also fold corner 13 up and crease along line 10 and 21. Fold corner 14 up and crease along line 12 and 21. Unfold to position shown here.

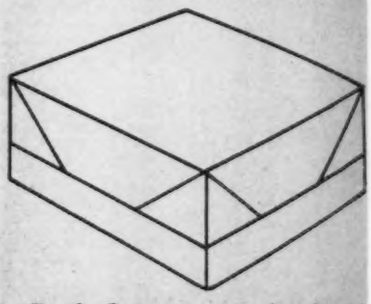
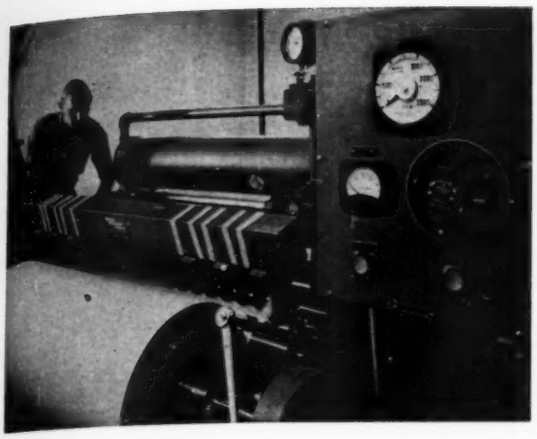


Fig. 8—Turn paper around so line 12 and 14 in Fig. 7 faces you. Place left hand inside and flatten crease 12 and 14. Fold corner 12 down under flap at 18 so points extend down to 14. Follow crease made in Fig. 7. Likewise, fold corner 10 down under the flap at 17 so that point extends down to 13.

NYU Estimating Courses

Letterpress and offset estimating are among the 22 evening courses being offered this fall by New York University. Courses begin Sept. 24. More information may be obtained from Division of General Education, New York University, 1 Washington Square North, New York 3, N. Y.



E. R. Wiltsie in plant of Maqua Company, Schenectady, N. Y., makes adjustment of slitting knives which cut the roll stock into 14 smaller rolls. Accuracy of cut width is controlled by General Electric Speed Variator. Operator controls are shown on board at right. The tabulating cards are used in data processing machines.

Producing Precise Tabulating Cards

Within a fairly recent period the use of data processing machines in general business and industry has been accelerated greatly. This has led to development of equipment for production of highly accurate tabulating cards used in the data processing machines.

The production of tabulating cards is a new venture for Maqua Company, Schenectady, N. Y. According to G. J. Schnell, manager of manufacturing-engineering, the manufacture of tabulating cards requires precise production control so that the cards will be neither too large nor too small for use in data processing machines.

Participating in this production control is General Electric's Speed Variator which regulates the speed of a paper slitting machine. Use of this equipment, it is reported, assures that rolls of card stock are uniformly cut to tolerances of +0.007 or −0.003 in. in width.

The Speed Variator and slitting machine were installed last fall to supply card-size webs to two rotary printing presses, on each of which can be produced 1300 cards per min. rate.

Exacting regulation of the paper slitter is necessary because of the manner in which the slitter operates. The machine cuts a large web of tab card paper into 14 smaller webs, and rewinds the small webs onto rolls.

As the size of the smaller rolls increases, tension on the large web builds up and can cause uneven cuts, and occasional breakage of the web, if not immediately corrected.

The machine operator, however, can control web speed to maintain a constant tension, so that equal stress is imparted to paper fibres. This prevents improperly sized cuts, uneven roll tightness, excessive curling of the paper, and web breakage.

Included in the Speed Variator equipment is a Kinamatic d.c. motor rated at 20 h.p., a power unit, and an operator's panel with controls and indicators. Circle No. 260 on Reader Service Card.

Proposed 1963 Conference On Printing Education

Announcement of a proposed International Conference on Printing Education was made by Samuel M. Burt, main speaker at the recent conference on printing education held by the Intl. Graphic Arts Education Assoc. at University of Colorado, Boulder, Colo. According to Burt, executive secretary, IGAEA and managing director, Education Council of the Graphic Arts Industry, the International Conference would be held in Montreal, Can., during the summer of 1963.

New IGAEA officers are: Fred Mason, Board of Vocational and Adult Education, Madison, Wis., president; Joseph Dreven, Lee Wallace High School, Gary, Ind., first vice president; S. Wayne Taylor, University of Houston, Houston, Tex., second vice president; Richard Epp, Riverside City Schools, Riverside, Calif., third vice president; Harold Sanger, Marshall High School, Chicago, secretary; and Vincent Coyne, Middlesex County Vocational High School, New Brunswick, N. J., treasurer.

Next year's IGAEA conference is to be held in Houston.

Burgess Opens New Mat Plant

Burgess Cellulose Co. announces the opening of a new plant and laboratory in Freeport, Ill. for the manufacture of stereotype mats. The plant has two laboratories; one for production quality control, and the other for research on stereotype mats, including the one-piece No-Pac mat. According to Victor Fishburn, president, the new plant with its modern equipment will increase company production.

Offset Color Printing for Tabloid Papers Demonstrated

A copy of the first edition of *The International Press* demonstrates the progressive educational attitude of the Intl. Printing Pressmen and Assistants' Union with headquarters at Pressmen's Home, Tenn.

The 16 page tabloid was printed on 45 lb. newsprint at the union's Technical Trade School under supervision of George O. Baker, director.

It is stated in the announcement on page 1: "The idea behind this newspaper tabloid is to show what can be done with newsprint so far as color process work is concerned." Every page of the issue contains at least one four color process illustration. All of the process color work—camera, platemaking, layout and printing—was done by instructors and students at the school. The standard process inks were used in standard sequence —yellow, red, blue and black.

The International Press is a demonstration of the aggressive attitude of the union's educational policy with respect to the printing processes at a well equipped school.

Printing is Ranked Eleventh For New Plant and Equipment

U. S. manufacturers, according to the Bureau of the Census, for new plant and equipment in 1957 topped $12 billion, a record high. The total represents an increase of 48% over 1954 capital outlay. Announcement was made by Horace Hart, director, Printing and Publishing Div., U. S. Dept. of Commerce.

Expenditures by the printing and publishing industries rose at a somewhat slower rate (45.5%) but also reached a peak of more than $345 million, placing this industry group eleventh in the list of twenty.

Modern, High-speed, Color-equipped PRESS UNITS by **SCOTT**

— Precision Engineered to meet the requirements of any Newspaper

WALTER SCOTT & CO.

EXECUTIVE & SALES OFFICE:
501 FIFTH AVE., NEW YORK 17

DIVISION OF **WOOD NEWSPAPER MACHINERY CORPORATION** Plant: Plainfield, N. J.

Send for literature describing SCOTT pressroom and reelroom equipment.

5-unit Scott Press and 3-2 folder with upper former. Equipped with color plate cylinder and reversing drive. Capacity, 40 pages, straight operation at running speed of 60,000 papers per hour or, running collect, 80 pages per hour at half speed.

For More Information Circle 156 on Reader Service Card

How to Apply Science to Printing is Taught Students

By FRANK A. DeWITT, *Rochester Institute of Technology*

THE scientific approach to printing is being emphasized at Rochester Institute of Technology in a course known as Science in Printing. Purpose of this study area is to create in the students an attitude of constructive skepticism toward both the conventional tried and true, as well as the new and unproved methods of producing printing.

Early sessions of the class are devoted to an examination of trade periodicals, books, literature, and advertising material supplied by manufacturers. These are compared with similar printed pieces available to the chemist, the physicist, the electronics expert, and workers in other technical jobs. Applications to printing are looked for in almost every account of scientific progress, whether it appeared in a magazine published by the food industry or in a paper for the optics profession.

Freedom in Their Work

Assignments leave the students wide latitude which may be a little disturbing at first. Although used to having their work prescribed in detail they soon learn how to set their own standards of time and excellence.

An assignment to make an oral report to the class was fulfilled by a wide range of subjects and a range in class time of from 5 min. to 2 hrs. Subjects discussed by the students included: introduction to electronics; technical description of the Scan-A-Graver; collotype printing; the Fourdrinier machine; standardized lighting; statistical quality control, and communication.

The choice of subjects may be influenced by various factors such as previous problems in printing, problems suggested by future or part time employers, the instructor in Science in Printing or in other printing courses, and even by instructors in other departments. Occasionally students arrange for outside speakers and these have included faculty members from other departments at RIT as well as representatives from industry.

Makes Own Choice

Emphasis on encouraging the student to choose his own method of fulfilling an assignment is based on the belief that a senior student will soon be in a job situation where his success will depend not only on doing the job he is hired for but also on his ability to sell his ideas to individuals and to groups. Science in Printing encourages each student to excel at his own choice of subject matter.

As a class and as individuals the students are producing some significant contributions to the literature on printing. A check list of desirable characteristics for typesetting machines compiled by a recent class was printed in *The Trade Compositor* with comments by the editor. Some of the project reports recently submitted are being duplicated or printed at RIT for general distribution.

The first two quarters are class room sessions under one instructor and the last quarter is devoted to a laboratory project which may be under the guidance of any instructor in the department. The project rather than the project report is the important work of the third quarter of the course. During this time an experimental or research project is chosen. The student then spends most of his time in the laboratory where he has a chance to learn by experience and to see if his idea has any merit.

The undergraduate is cautioned not to tackle too big a project. He must keep records and report what happens, but he is not under any compulsion to get the results he or his instructor thinks he should get. The only pressure is toward persuading him to carefully observe, keep records, and draw conclusions. He also recommends further experiments for students in future classes.

Kinds of Projects

One project involved the age resisting characteristics of paper. Some of the data included the pH of paper before and after printing by offset and the supposition was that the acidity of the paper would be greater after printing. Laboratory experiments proved it wasn't, and thus a whole new project was suggested.

Other projects recently completed included: Use of silicones in offset lithography; demonstration of quality control for short runs; comparison of phototypesetting correction time with hot metal correction time; comparison of pasteup with makeup for newspaper pages; wearability of type; making a collotype plate, and use of Autoscreen film.

Several students designed a production control system for the company they were to work for after

What's Ahead for the Reader:

An October issue filled with complete reports of what took place in New York City during Exposition Week.

***Printing Production's* editors and staff writers will by-line stories on the important developments which unfold at the Coliseum and New York Trade Show Building. Also, they will be covering the Craftsmen, Printing Industry of America, and Electrotypers conventions, as well as the important wrap-around plate workshop sponsored by Research & Engineering Council.**

If you were unable to attend or could not see everything at the big shows this issue will be doubly important to you.

There will also be another comprehensive installment in the series on *Status of Graphic Arts Research* in which the author, Dr. Marvin Rogers, examines the reasons why printing is behind other industries in finding new ways of doing things.

Many other features will combine to make the October issue one you will want for your file record.

graduation. Several also did some laboratory work in the plants of interested printers.

The form of the report is not prescribed. Usually it consists of a description of the work done, data taken, conclusions and suggestions for further work. But it may also include a set of slides for use in the classroom or it may be a reel of magnetic tape.

Science in Printing does not seek to pile on one last bit of information. Rather it attempts to give each student a chance to develop his own particular interest to a point where he may have a definite area of competence. The student is given a chance to work and make reports as he will be expected to do after graduation. He is encouraged to do his own thinking and base conclusions on facts observed in his work.

Correct Offset Press Packing Will Reduce Amount of Wear on Litho Plate

The useful life of an offset press plate is dependent upon proper press packing, according to a bulletin issued by the Lithographic Division of the New York Employing Printers Assoc. One of the most damaging factors is the wear that the plate receives from the blanket. The way in which the blanket is leveled in relation to the plate and in relation to the cylinder bearers is important in press set-up. This part of the press set-up or make-ready is called the packing procedure.

The amount of wear received by the plate is in direct proportion to the amount of squeeze pressure and the amount of rub between plate and blanket. This is measured in thousandths of an inch, and an error of 0.002 in. can ruin quality, run up lost time, produce a lot of waste, and finally spoil the plate.

Method of Packing a Press

The usual method of packing a press is to mike the plate, the blanket, and the packing sheets. Then, knowing the undercuts of the two cylinders, calculate how much packing to use on each cylinder. This seems simple enough and it should be accurate using a highly sensitive instrument such as a micrometer. But the fact is that presses are still often packed improperly.

A frequent mistake is using a machinist's micrometer to caliper a blanket. This type of mike usually indicates the blanket to be one to three thousandths thinner than it really is. This mistake can result in several thousandths overpressure. Another mistake is to ignore the fractions of thousandths in calculations. When miking a plate, a blanket, and five packing sheets, these fractions could easily add up to one or two thousandths.

There is always the possibility of making an error in addition. Seldom bothering to write down mike readings, and just adding them mentally has had some serious consequences. Another thing to consider is that the blanket thins out as it stretches around the cylinder. Every blanket acts a little differently.

Recently it has been established that certain grades of packing paper also thin out under pressure. Paper may contain from 30% to 50% air. Some of this air squeezes out under pressure, causing the packing paper to thin out.

The air in the fabric of the blanket does the same thing, but there is always the possibility that the rubber will swell. The safe thing to do is to use a special blanket mike, and then test the final set-up with a packing gauge.

Therefore the steps to take in packing the offset press are: (1) Mike the blanket with the special deep-throat soft materials mike or the blanket thickness gauge to get accurate caliper. (2) Measure the plate and all packing sheets carefully with a machinist's mike. (3) Use hard, non-bulky, special packing sheets. (4) Write down all readings, in fractions, and add carefully to arrive at the desired packing for each cylinder. (5) After the packing setup is complete run the press for two or three minutes with the pressure on. Then check both cylinders with the packing gauge.

"We're getting an impression alright . . . of your elbows!"

Industry-Education Co-op Awards to be Presented

Awards will again be presented this year to three local printing trade groups in recognition of outstanding industry-education cooperative programs in their communities by the Education Council of the Graphic Arts Industry. The awards are known as the James J. Rudisill Industry-Education Awards.

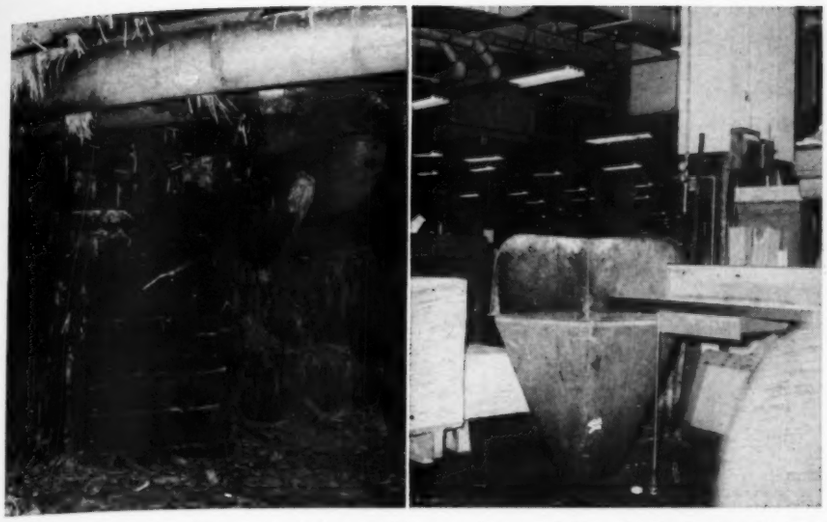
Established in 1958, the outstanding award was made to the New York Employing Printers Assoc. and two achievement awards were made to the Printing Industry Assoc. of Dayton and the Apprenticeship Commission for the Printing Trades of Montreal.

This year the awards will be made to three new groups at the Second Annual Awards Banquet of the Education Council of the Graphic Arts Industry, Hotel Mayflower, Washington, D. C., Dec. 8.

CDM Offers Decal Booklet

Let's Talk Decals is the title of a 12 page, illustrated booklet released by the Certified Decal Manufacturers of the Screen Process Printing Assoc., Intl. Contained in the publication are helpful, easy-to-read explanations of the various kinds of decals now being produced. Simplified definitions of the terminology used in the decal industry are also included.

A copy of the booklet is available by writing the Screen Process Printing Assoc., Intl., 549 West Randolph St., Chicago 6, Ill.



Waste trimmings from bindery are baled in this central room (left) at Nashville (Tenn.) Parthenon Press; near each cutting machine is a bin for trim disposal through duct to baling center.

Quick Disposal of Plant's Paper Waste

The plant doing a considerable volume of printing faces a paper trimming and waste problem in proportion to the amount of work being done. How to collect trimmings from large cutters and trimmers and how to dispose of the waste accumulated has been solved by the Parthenon Press, Nashville, Tenn., where periodicals and books are produced in large quantities.

Center of this system (left picture) is an enclosed, fireproof area in the basement of the plant where trimmings are separated into two classifications and baled for sale to a local waste paper dealer at prices that help considerably in meeting the cost of the disposal system.

Prime, all-white trimmings bring a better price than a mixture of white and color. A third classification, brought to the center in box trucks, represents a general cleanup of all paper waste from the entire plant. It is, of course, of less value than the trimmings. The Nashville Paper Stock Co., with a contract to purchase baled trimmings and all waste paper from all of the PIA group in Nashville, makes regular pickups from each of the plants as the baled material accumulates. Payments for all paper trimmings are made to the local PIA office and are prorated to the plant owners according to amounts picked up.

Bringing the trimmings into the baling room from the trimmers and cutters are 6 in. and 8 in. metal pipe lines (seen overhead at left) connecting with receiving bins (of the type shown in right picture) beside each trimmer or cutter. After the trimmer or cutter blade rises, the operator, with a single sweep of his hand, brushes the trimming waste into the bin. The combination book and periodical trimmers have bins underneath that catch the trimmings from above.

Each collection pipe line has its own suction fan which can be cut off when not in use. The plant maintenance staff believes that having separate fans, rather than one large central fan, makes for better insurance in case the whole fan system went out of order at the same time.

The cores from roll stock used on the rotary presses in the plant are brought to this central room to have the remaining paper removed.

Fire underwriters say this system of handling trimmings and waste paper is the least dangerous as a fire hazard and this is reflected in the rate paid by the owners of the plant. A metal sliding door between the waste paper center and the rest of the basement is kept closed at all times.—*By P. R. Russell, Staff Correspondent.*

GIVE

THE UNITED WAY

RIT Plans Seminar on Color

F. L. Wurzburg, Printing Ink Div., Interchemical Corporation, has been named technical adviser for a seminar on color control for the Graphic Arts industries to be held at Rochester Institute of Technology, Nov. 18-20.

Topics to be considered are fundamentals of color, color specification, illumination, color vision, intrumentation, inspection, and process control. The program will be designed and coordinated by Warren Rhodes, director, Graphic Arts research department, and Harold Kentner, assistant director for extended services, both of RIT.

Expands Equipment Lines

The Inland Newspaper Supply Co. has announced that the company has been made mid-west dealer for two newspaper equipment manufacturing companies. Inland will supply all of the stereotype products made by Wood Newspaper Machinery Corp. and all of the products manufactured by Sta-Hi Corporation.

Check Printing on Multipress

A test run of bank checks coded with magnetic ink has been made on the B. Verner Co.'s Multipress Model FR at a recorded speed of 7000 i.p.h. The checks have been accepted according to the standards set by the American Bankers Assoc. in a report received from the National Cash Register Co. by the manufacturers of the Multipress.

ROP Conference Postponed

The Newspaper ROP Color Conference, scheduled to be held at Hotel Biltmore, New York, N. Y., on Sept. 29 has been postponed indefinitely. This information was received from Arthur Brashears, secretary of the American Assoc. of Newspaper Representatives.

EQUIPMENT & SUPPLIES

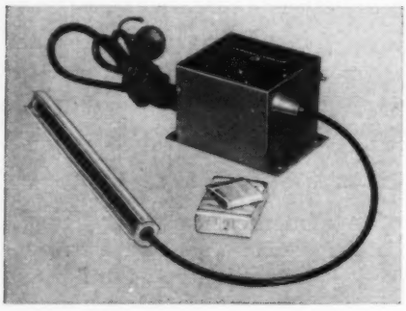
If you wish additional information concerning equipment, supplies, and/or technical literature, please make your request on *Printing Production's* Reader Service Card to be found in this issue.

NEW TYPE OF STATIC ELIMINATOR FOR PRINTING-BINDING EQUIPMENT

A unitized static eliminator has been announced by Herbert Products, Inc. Featured in the eliminator are printed circuit construction and individual midget transformer. Called the Curastat, the device consists of the static bar itself and a miniature transformer which can be mounted directly on the machine. Equipment is designed for use on a wide variety of printing and binding machinery, such as printing presses, proof presses, folders and envelope machines.

The static bars are made with effective lengths from 2 in. to 92 in. Printed circuits are employed in capacitor couplings inside the static bar.

Capacity of the midget transformer is 8000 V. secondary; available for operation on 115, 230, 440 and 550 V. primary supply. Dimensions of the transformer



casing are: 4½ in. long, 4 in. wide and 3½ in. high.

If the length of the static bar does not exceed 6 ft., one transformer is employed. If the static bar installation exceeds 6 ft., an individual transformer is used for each bar.

Sponsor states Curastat equipments can be furnished and have been made up to 92 in. wide. However, up to Aug. 1, 54 in. bars have been employed in the largest plant working installation.

Maker reports a severe test made on a Chief 29 printing press used for color printing on vinyl and other plastics. On this press the bars were installed approx. 2 in. above the feed pile, on the feed table and at the delivery. The static bar above the feed pile was to permit feeding without the common doubles normally encountered when attempting to feed the high static vinyl or plastic sheets. At the delivery end the Curastat aided in achieving neat, square piling without static float, stated the manufacturer.

By way of further explanation, it is stated that the Curastat bar was installed so that its intense ionization forms a conductive layer of air on the top of the sheet which permits escape of the static charge to ground. Disturbance of the sheet with the sheet below, by combination of the feeder operation and air injection, provides an infinitesimal air space between sheets, and permits electrons from the underside of the top sheet to flow to the void provided above the sheet and to ground. Circle No. 250 on Reader Service Card.

LAMINATED PLASTIC BASE

A light weight laminated plastic for use as newspaper, plate and proof press base has been developed by Midwest Publishers Supply Co. Called Rezlon, it is described as a dense, hard material which will not delaminate. Available in any size and thickness and finished form, the base is said to have a ± 0.001 in. tolerance. Unfinished and semi-finished forms are also offered for final finishing in customer's plant. Circle No. 272 on Reader Service Card.

TANDEMER WEB OFFSET PRESS WITH INTERCHANGEABLE ATTACHMENTS

A Tandemer 8½ in. by 13 in. offset press which accommodates interchangeable units which manufacturer states can be assembled to produce one type of job, detached and reassembled to produce another type of job, has been developed by Tandemer Corporation. Press has plate size of 10½ in by 13 in.

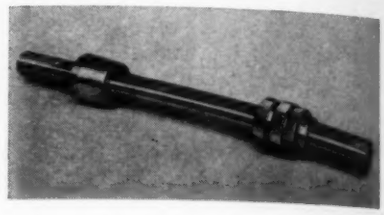
The press features a paper coloring unit said to produce standard and unusual paper colors, patterns, safety backgrounds and pantographs. Dyestuffs provided in packaged formulas for 5 gallons of coloring solution can be emptied into a plastic bottle, mixed with the required water and alcohol to make the solution and then pumped into the coloring fountain. Changing colors is done by reversing the flow which will drain the fountain. Washing and refilling the fountain with another color are done in the same manner.

Units for numbering, rotary, jump and cross perforating, punching, attaching carbon, rewinding, die cutting, and flat pack folding operations are also available. Circle No. 264 on Reader Service Card.

SELF-EXPANDING HEAD FEATURED ON HOBBS PAPER CORE HOLDER

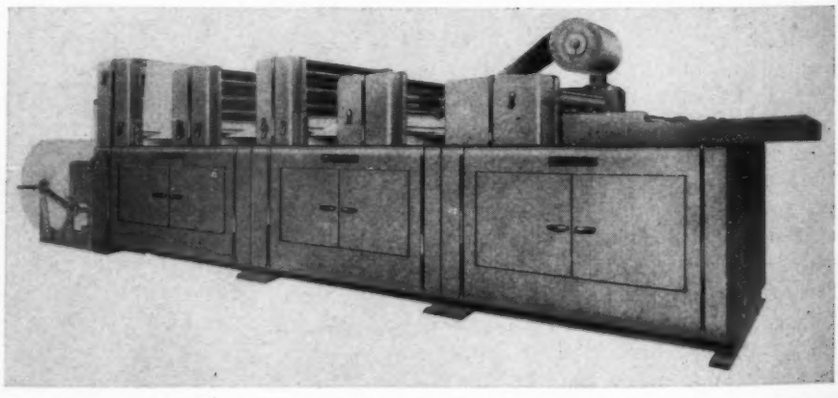
Hobbs Manufacturing Co. has developed its Center Loc core holder for fixing cores of paper on the shaft for winding. The holder features a self-expanding head which clamps paper core when winding process begins.

Operator can slide the core on the clamp, position it, and when winding

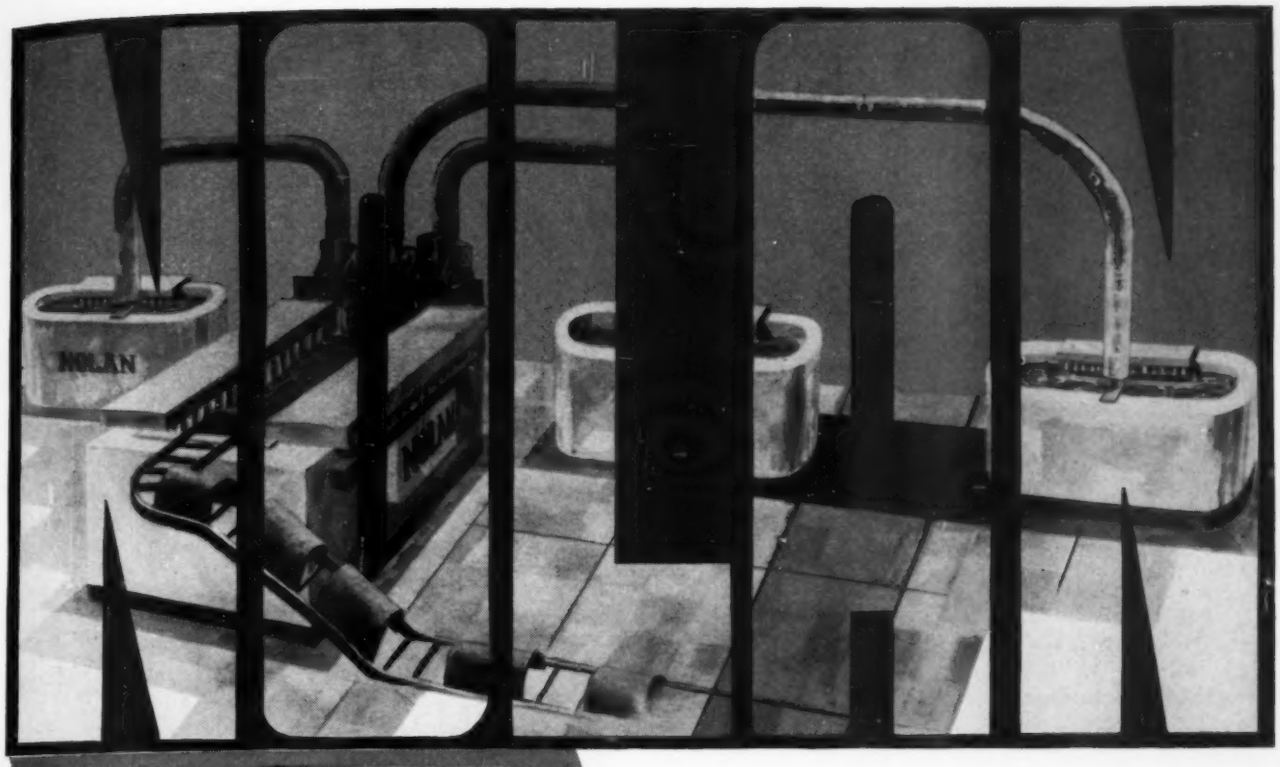


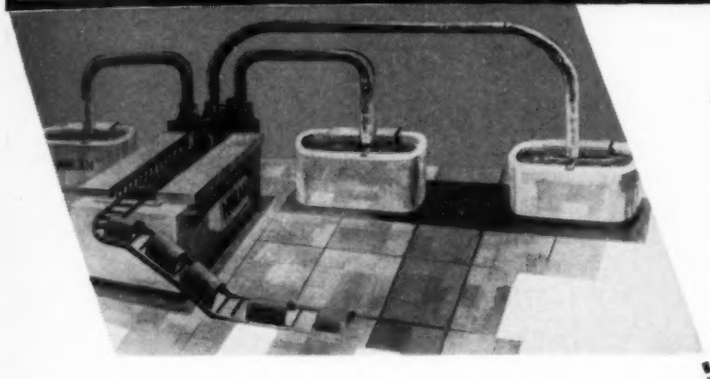
process ends, clamp is said to slacken immediately and the wound package can be withdrawn from the arbor. Adjustment is provided for winding with straight edges. Elimination of damage to the edges of the core, and no slipping, also are claimed. Circle No. 257 on Reader Service Card.

Printing Paper Packaging—Crown Zellerbach Corp. has introduced its white wrap for Level/Smooth coated book papers. Rolls and skids have a bleached white kraft wrap and cartons are white corrugated. The familiar Zellerbach emblem is easily recognizable. Circle No. 267 on Reader Service Card.



The Tandemer 8½ in. by 13 in. offset press available with interchangeable units has been introduced by Tandemer Corporation. Units include paper coloring, rotary, rewinding, jump and perforating, and flat pack folding.





Already a reality, artist's sketch depicts a typical modern remelt system developed by NOLAN for leading newspapers. Conveyor carries dead plates to master furnace as they are removed from press. Molten metal is transferred to working furnaces in various departments—supplying metal for casters, repigging, *every* plant need. One molten metal source, each furnace automatically supplied with additional metal as needed!

. . . pioneering a new standard in remelt efficiency!

We'd be happy to show you how NOLAN'S engineering skills can be put to work in designing and producing your new remelt installation—large or small.

***Keep rollin' – buy* NOLAN**

NOLAN Corporation
ROME, N. Y.

For More Information Circle 197 on Reader Service Card

Fittings for Making Storage Rack—Hollaender Manufacturing Co. has introduced its Nu-Rail slip-on fittings reported to eliminate threading or welding of pipe. A rack for warehousing heavy material can be erected by using a frame made with pipe and the slip-on fittings. For storing fragile material, a rack made with 1½ in. electrical conduit and the fittings can be used. Circle No. 265 on Reader Service Card.

PAPERBOARD SMOOTHNESS TESTER

A machine designed to test the printability of paperboard has been developed by Gardner Division, Diamond Gardner Corp. Called the Print Smoothness Tester it is essentially a bench model gravure press 54 in. by 25 in. by 27 in.

The Tester provides a numerical smoothness rating by counting the dot misses through the use of a template. Ink

film remains constant for a series of prints without adding makeup ink, states sponsor.

Another feature is that pressure is obtained by spring or air loading. According to manufacturer, adjustments in pressure are not necessary for changes in caliper. Circle No. 263 on Reader Service Card.

PORTABLE VISUAL CONTROL CHART WITH ROLLING PLASTIC SLEEVE

A visual production control board designed with a rotating transparent plastic sleeve has been developed by Conley, Baltzer & Steward. Called Rol-a-chart, it is built of welded steel, finished in a gray hammertone and uses a wall space of 25 in. by 23½ in.

Customers' orders, production scheduling, ad schedules and machine loading entries can be made with marking pencil on the plastic sleeve. Two rollers with

nylon bearings rotate the sleeve. Each line on the board is divided in ¼ in. or ½ in. squares which allows roof for 168 time units to be marked on the sleeve.

Included also is a stationary index which allows space for listing up to 80 items vertically. An elastic cord with aluminum clips on either end provides an auxiliary *Today* line when placed on the vertical lines. Chart weighs 9½ lbs. and is equipped with wall hangers, folding easel and retractable handle. Circle No. 275 on Reader Service Card.

THERMOPLASTIC METALITE TYPE IN 36 PT. TO 72 PT. FONTS

Display type in fonts ranging from 36 pt. to 72 pt. and cast on 9 in. bars is available from Metalite Type Foundry. The type faces are cast on a 12 pt. shank with the type characters overhanging

Metalite

centrally. Spacing between the letter characters permits sawing by the purchaser to secure the individual type. The cut apart type characters are distributed into a type case for regular hand composition. The thermoplastic compound is said to be 10 times as light as type metal. The type is cast from Ludlow matrices.

Metalite Type Foundry states the type will withstand heavy pressure for repeated stereotype molding. However, since the type is cast from a thermoplastic compound, it cannot be used for hot stereo molding purposes. Sponsor claims the type is made to have excellent wearing qualities in direct printing. It is further claimed that excellent reproduction proofs may be taken from Metalite. If dropped on the floor the type face is not easily damaged. Circle No. 271 on Reader Service Card.

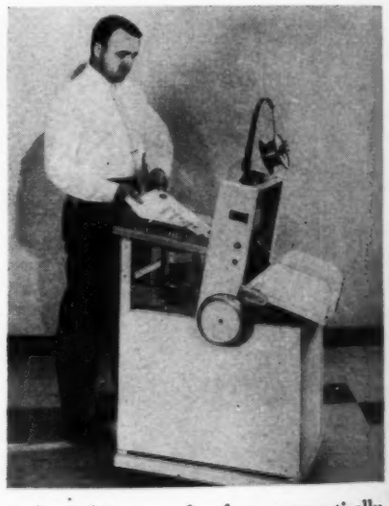
PLASTIC TYPOGRAPHIC ROLLER

A new plastic typographic roller, called Koraltone, recommended for use on corrugated box presses has been developed by Ideal Roller & Manufacturing Co. Sponsor claims the Koraltone roller bonds well with the roller core and is easy to clean. Circle No. 274 on Reader Service Card.

THOMAS STITCHING UNIT FOR COLLATORS OR HAND-FEEDING

A portable automatic stitcher designed to work with its Rotomatic and Gathermatic collators, or as a separate hand-feed stitcher has been introduced by Thomas Collator Industries, Inc. Stitcher measures 17 in. by 30½ in. and has a reported capacity of 3 in. by 5 in. to 11 in. by 14 in.

Integrated with the Rotomatic, the stitcher can be controlled by the collator's push button programmer, and collating



and stitching can be done automatically, states sponsor.

Used as a portable hand-feed stapler, a dual head enables operator choice of one or two staples, and of top or side of set stitching. Also featured is a built-in jogger which squares edges of the sheets.

After set is stapled, a counter records the number of finished sets, and each set is stacked in a receiving bin.

The stitcher is 52½ in. high, weighs approx. 25 lbs., and is mounted on casters. It is powered by a 1/6 h.p. motor, using 4.2 amps, 110 V. Circle No. 269 on Reader Service Card.

BAUER INTRODUCES THREE FACES

Three type faces have been announced by Bauer Alphabets, Inc. They are: Folio Medium Extended with corresponding Italic, Bauer Classic and Italic, and Cantate.

Folio Medium Extended is a modern Grotesk with clear and open characters while Bauer Classic and Italic, as name indicates, is a Classic type face. Cantate

Folio Medium Ex

Folio Medium Ex

Bauer Classic

Bauer Classic Italic

Cantate

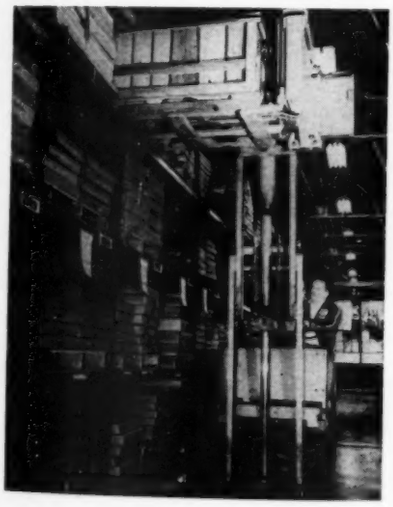
is the first connecting Script in the Bauer line and has ornamental flourishes on the capital characters. Circle No. 258 on Reader Service Card.

SIDE TRANSFER ATTACHMENT FOR STANDARD FORK LIFT TRUCKS

A side transfer loading and unloading attachment (turnable at 90 deg. angle) and said to be designed to fit any standard fork lift truck has been introduced by Equipment Manufacturing, Inc.

Manufacturer states a fork lift truck with this attachment permits the operator to pick up or discharge his unit load in narrow aisles without turning the truck at a 90 deg. angle.

Two hydraulic circuits powered by the truck's hydraulic system are used. Double



or single faced pallets using 2 in. by 4 in. stringers can be handled.

Attachments are available to handle pallet sizes up to 48 in. wide by 48 in. long. The minimum aisle recommended for a 48 in. by 48 in. load is 70 in. Aisle widths will vary with the pallet size. Racks provided with a load bearing channel to carry the fork wheel are

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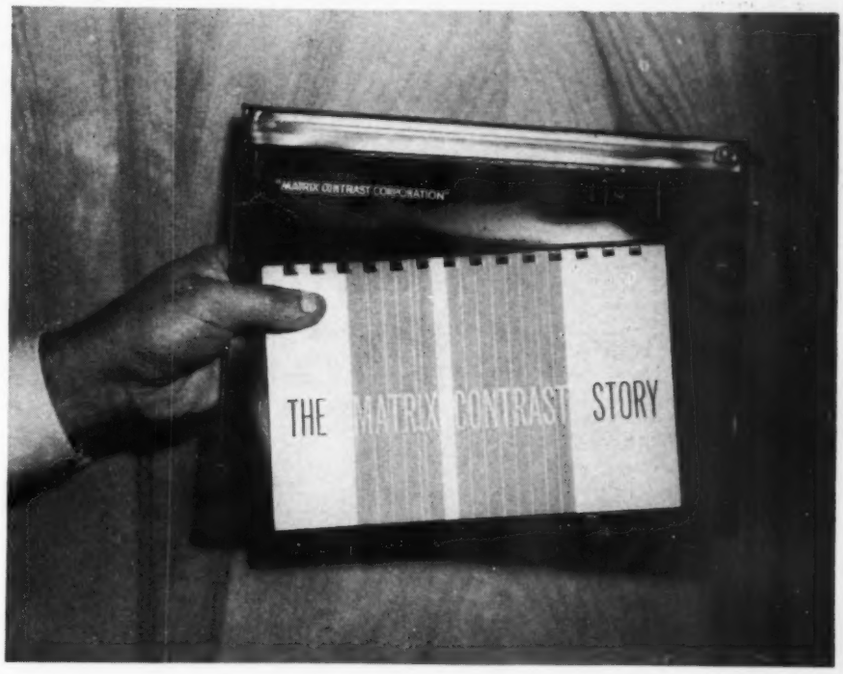

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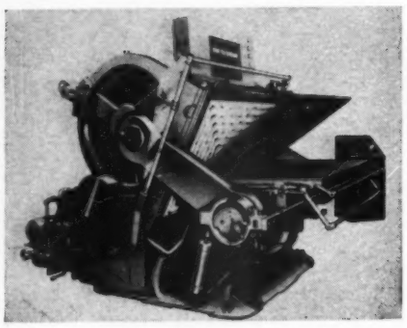
For More Information Circle 114 on Reader Service Card

featured in this equipment. These channels replace the cross members between the shelf stringers.

A 4000 lb. capacity counterbalanced fork lift truck is used with a 2500 lb. capacity attachment. The 2500 lb. capacity model weighs less than 1500 lbs., and is claimed to be designed so that the load center is approx. 22½ in. from the truck axle. Circle No. 259 on Reader Service Card.

THOMSON DIE CUTTING PRESSES WITH MICROMETER ADJUSTMENT

The latest models 44 in. by 66 in. AC-DM and 38 in. by 54 in. AC-DM die cutting presses featuring 100 T. capacity have been reported by Thomson-



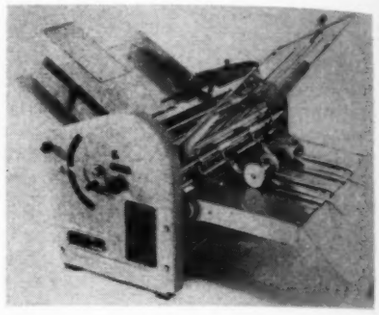
National Press Co., Inc. The presses are designed with a double micrometer adjustment to allow individual adjustment on each side of the platen.

According to sponsor, air clutch and air brake design will stop a platen in a movement of 1/16 in. A master control station designed for continuous or automatic start-stop operations is equipped with a pre-set timer.

Both presses feature a hinged steel cutting device, air compressor and a new pre-wired electrical panel. An auxiliary mechanical brake and an all-steel frame are included on the 44 in. by 66 in. press. Circle No. 255 on Reader Service Card.

CHALLENGE ANNOUNCES NEW PORTABLE FOLDING MACHINE

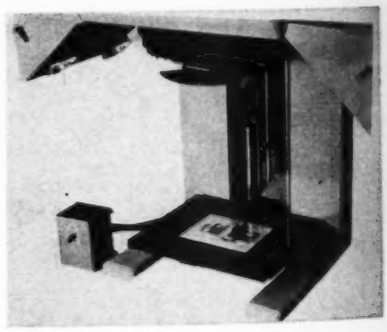
A table model folding machine reported to handle sheets in sizes 4 in. by 5 in. through 17 in. by 22 in. at speeds up to 9000 per hour has been developed by Challenge Machinery Co. Called the



Challenge Fold-Master Model FH-6, it can handle single or double parallel folds as small as 1½ in. Two scoring wheels for right angle scoring. In addition, a lever is provided for adjusting from single to double parallel folding. Circle No. 266 on Reader Service Card.

ATTACHMENTS DESIGNED FOR METEORITE VERTICAL CAMERA

Robertson Photo-mechanix, Inc. has designed attachments for use with its 14 in. by 17 in. Meteorite vertical camera. Included are an iris diaphragm control mechanism for co-ordinating lens opening with focus setting; a stayflat holder, vacuum film holder and a series of cut



film holders; a reverser type prism folder for right reading exposures; and a Color-Tran lighting unit for new or old cameras.

A series of interchangeable heads is also available. According to manufacturer one camera with these heads can be used alternately for film negatives, xerography, right reading positives or stats. Circle No. 251 on Reader Service Card.

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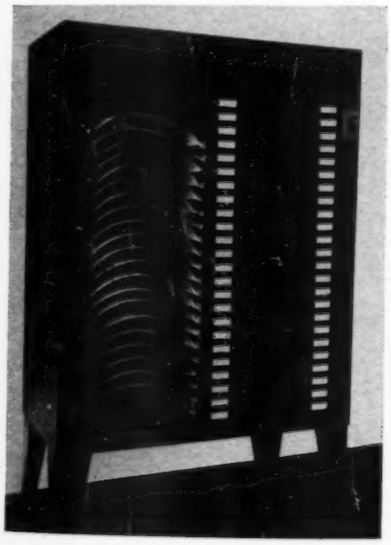
This Bobst cutting and creasing press is fitted with a cutting chase which can be turned over for access to makeready without removing the chase.

CORRUGATED AND SOLID FIBRE CUTTING AND CREASING PRESS

Thomson-National Press Co., Inc. has introduced the Bobst SPO 1575 Autoplaten, a 42 in. by 62 in. corrugated and solid fibre cutting and creasing press. The press handles corrugated stock up to ⅜ in. and fibreboard in all standard thicknesses. Sponsor states that either a 0.937 in. or 1⅛ in. cutting rule can be used without crushing the stock. Features include a pivot-in-place cutting chase which can be pulled out horizontally and turned over for access to makeready without removing the chase. Speeds up to 4500 sheets per hr. are reported. Circle No. 254 on Reader Service Card.

STEREOTYPE MAT CABINET WITH ELECTRIC STRIP HEATERS

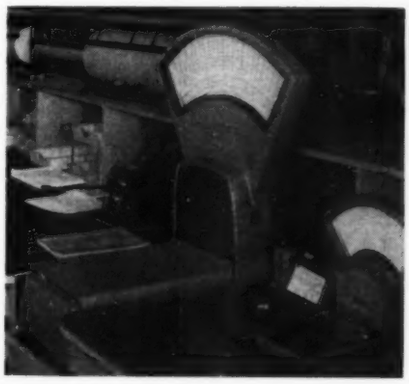
Thermo-File, an electrically heated storage cabinet for stereotype page mats has been developed by Sta-Hi Corporation. Mats can be kept in proper condition in this cabinet after molding before plate casting, and after casting. Manufacturer states the cabinets were designed to store live color page mats at proper temperature to stabilize moisture content and register control.



Thermo-File is available in Model 48 with a 192 mat capacity, and Model 24 with 96 mat capacity. Walls and sliding doors of the cabinet are insulated with fiberglass and electric strip heaters are installed inside the walls. Temperature is controlled by a thermostat. Door mounted label holders provide identification of mats. Circle No. 253 on Reader Service Card.

FLANGED STEEL SCALE WELLS FOR TRINER PARCEL POST SCALES

Triner Scale and Manufacturing Co. has designed flanged and reinforced steel scale wells for its automatic parcel post scales. These scale wells are claimed to



end employee lifting fatigue and improve productivity. Wells available in hammertone gray or granite gray are said to be easily installed. The flanged edges hold the wells secure by means of screws. Circle No. 273 on Reader Service Card.

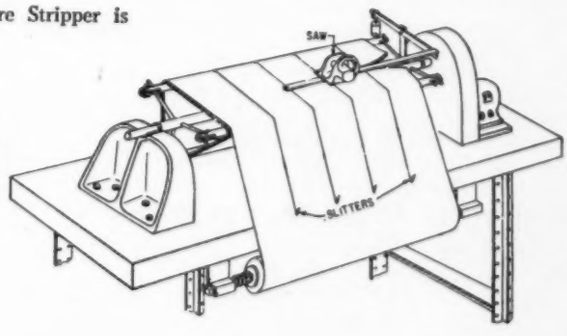
CORE STRIPPER RECOVERS WASTE— CUTS TO VARYING USEFUL SIZES

The Capco Model B Core Stripper is a machine that will strip the waste from roll cores after having been removed from the press, reports Capital Tool & Mfg. Co. The stripper is constructed with adjustable reel to provide various lengths of paper from 4 in. to 37 in. A movable saw traveling parallel with the reel cuts the paper to required size. The cone stripping operation is simple and removal of the paper from the reel is automatic.

The stripped and cut paper may be used for copy, proofs, wrappers, towels, resale, and the like.

Sponsor states slitters and saws may be attached to the machine to cut the sheet to most any size.

The Capco Model B Core Stripper is mounted on a table approx. 23 in. by 93 in. Equipped with a geared motor, 115 v. a.c., 60 cy., s.ph., 13 h.p. motor machine weight is about 350 lbs. Machine is equipped with oilless bearings. Equipment is ready to operate after plugging into any electrical outlet. Check off No. 276 on Reader Service Card.



The Capco Model B Core Stripper strips core waste into multiple sections and cuts them into convenient sizes for copy, proofs, towels, etc.

DOUTHITT INTRODUCES NEW LINE OF VACUUM PRINTING FRAMES

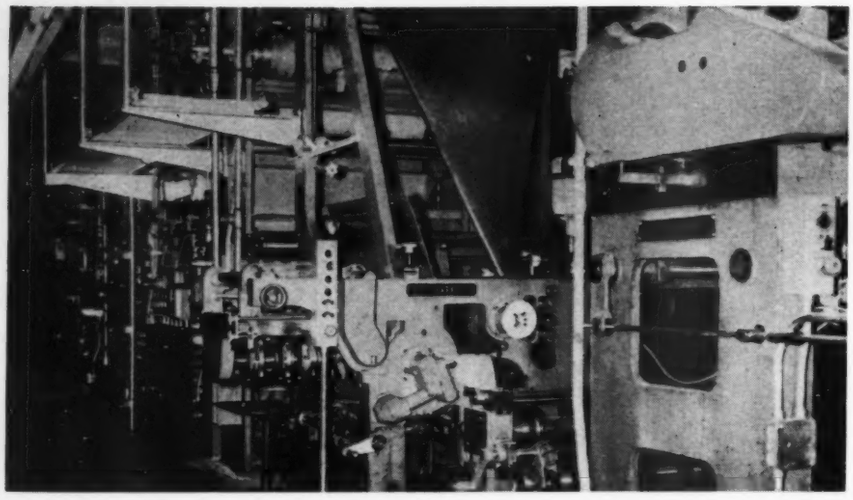
A new line of vacuum printing frames, with fingertip control achieved through use of a spring and fulcrum bracket, has been announced by Douthitt Corporation. When loaded the fulcrum arrangement is said to equalize the weight of the loaded frame to enable ease of positioning for printing. An automatic clamp prevents operator from opening glass frame until vacuum has been released.

In operation the printing frame utilizes a separate standing arc lamp to assure over-all light coverage. Other features are reported to include a vacuum reserve tank regulated by an automatic control switch for immediate vacuum. Interval timer, vacuum gauge, pump, motor and a drawer for storage of masking paper

and negatives are standard equipment. The frames are available in sizes from 20 in. by 24 in. to 40 in. by 50 in. Circle No. 278 on Reader Service Card.

DEVELOPS CURVED ELECTRO PLATE MADE OF PLASTIC AND ALUMINUM

Printing Plate Supply Co. is now making curved electrotype plates out of plastic and aluminum. Plates are formed in about 10 min. in a curved die under 100 p.s.i. pressure at 325 deg., according to the manufacturers. They have been designated Color-Line plates. Under construction is a unit for producing flat electros. Circle No. 280 on Reader Service Card.



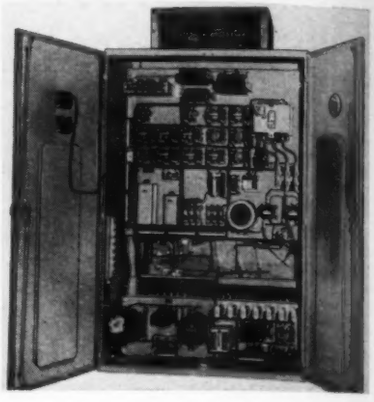
Hess & Barker Magazine Folder—A high speed magazine folder for web offset and letterpress equipment has been developed by Hess & Barker. Design of the folder is said to enable changing the lap while the machine is running. Sponsor claims other features include a long magazine former and positive timing wheels on the signature feed which eliminates tapes.

The folder delivers open and closed head tabloid signatures and two different magazine products with reported fast changeover between products. It can be adapted to all Hess & Barker high speed presses from 22¾ in. by 36½ in. and up, as well as other webfed presses. Pictured is a recent folder installation on a Hess & Barker multicolor web offset press in line with rotary punching and sheeting. Circle No. 277 on Reader Service Card.

ADJUSTABLE SPEED PRESS DRIVE AVAILABLE FOR WEBFED PRESSES

An adjustable speed d.c. group press drive for newspaper, rotogravure and magazine webfed presses has been developed by Cutler-Hammer, Inc. Called the D-c Webmaster, it makes use of compact static power conversion units. Basis of the drive is a magnetic amplifier utilizing reactors and silicon rectifiers, which are said to provide flexible stepless speed control.

Press speed is claimed to be virtually independent of the load because the speed of the motor is related directly to the Webmaster's voltage output. This output voltage is regulated to a constant level



for a given speed setting by a closed loop control system, reports sponsor. Webmasters are available in individual or dual drives. Circle No. 284 on Reader Service Card.

HEAVY DUTY INDUSTRIAL TRUCK WITH PAPER ROLL ATTACHMENT

The GLF-80 heavy duty Dynamotive industrial truck equipped with a revolving paper roll attachment for loading and

unloading 5200 lb., 60 in. diam. paper rolls has been announced by Automatic Transportation Co. Truck can be used to speed boxcar loading, and can be teamed with a companion Dynamotive, equipped with extra high lift, for stacking rolls in storage area, states sponsor. Model is a gas powered, electric driven truck. Circle No. 279 on Reader Service Card.

OFFSET PAPER AVAILABLE FOR HIGH SPEED OFFSET PRESSES

An enlarged line of papers for both cloth bound and paperback books, including three grades of offset sheets, and four letterpress grades, is being offered by New York & Pennsylvania Co. according to a recent announcement.

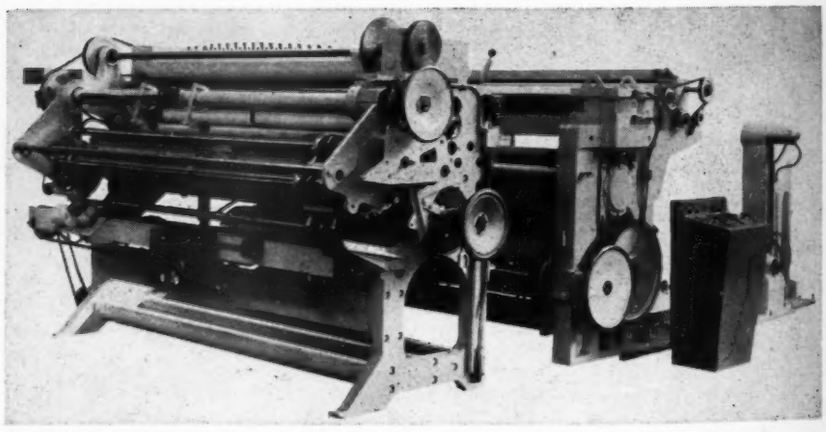
A web offset sheet to complement Penn/Brite has been developed for use on high speed rotary offset presses. Also introduced is Penn/Flex Offset, a flexible paper which allows pages of side-stitched books to lie flat. Circle No. 256 on Reader Service Card.

LAMINATED PLASTIC EMBOSSING DIE

A new type of steel laminated thermo plastic embossing die has been developed by T-P Embossing Die Co. The dies are made from the female brass originals. Circle No. 252 on Reader Service Card.

RACK MOUNTED VOLTAGE REGULATOR

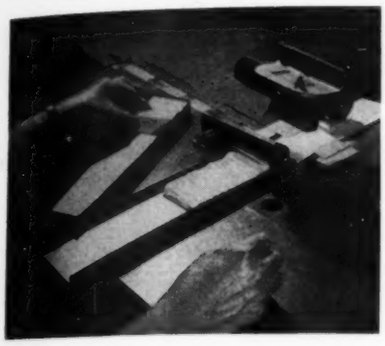
General Electric Co. announces a 19 in. rack mounted voltage regulator designed to hold single-phase loads up to 8.5 kva. and 100 amps. Called Inductrol, it is available in automatic or motor driven models. According to G-E, the voltage regulator is without brushes, introduces no harmful wave form distortion, and is said to be unaffected by power factor, frequency, or load. Controls maintain ±1% band with accuracy over a temperature range of −60 C. to +60 C., states sponsor. Circle No. 261 on Reader Service Card.



Automatic Rewinding Machine—Paper Converting Machine Co. reports its Model 2481 rewinder, a 90 in. machine with continuous operation at rated speeds over 1000 ft. per min. Sponsor states rewinder transfers the web automatically for each set of rolls while running full speed continuously. Machine is furnished with Paper Converting's shear cut perforating unit. It is claimed an accurate roll count is made with a clean cut off, and a variable count can be arranged to furnish different size rolls. The embossing unit is supplied with air loaded 20 in. diam. paper and steel embossing rolls with micrometer adjustments for control of nip pressure. The unwind stand is a shaftless belt driven type which will take 60 in. diam. rolls. It is designed with an automatic, constant tension dancer, claims sponsor. Circle No. 286 on Reader Service Card.

LABEL IMPRINTER AND CUTTER FOR ATTACHMENT TO SPEEDAUMATS

The Mail-Aid Label Cutter, states Mailers Service, Inc., is a unit for attachment to all Speedaumat addressing machines equipped with the strip lister. Using the device, it is said that one operator can imprint and cut from 6000 to 8000 labels per hr. Rolled gummed label



stock is used. Device is shown in the illustration.

A companion piece of equipment has been named Mail-Aid Hand Label Affixer. This consists of an open top tray-like receptacle. The device permits affixing of gummed labels up to 1500 per hr. The labels are laid on edge in the tray. With one sweeping motion the operator picks up a label, wipes it across a moist sponge at the front end of the tray and continues the movement by positioning the label on the mailing piece. Circle No. 270 on Reader Service Card.

SAMPLE CARTON UNIT EQUIPPED FOR LAYOUT, CREASING, CUTTING

A boxmaking unit for making sample cartons is reported to combine in one operation, layout, creasing and cutting. Introduced by Bar-Plate Manufacturing Co., the unit is available in sizes 24 in.

by 36 in., 36 in. by 48 in., and 48 in. by 60 in. Sponsor states device is fitted with all necessary devices to permit securing precise measurements.

It is equipped with a glass top surface which is adjustable from 180 to 30 deg. Two grippers and a side guide hold the board. Attached to a roller chain and operated by knurled handles is a stainless steel straight edge beveled two sides. Circle No. 268 on Reader Service Card.

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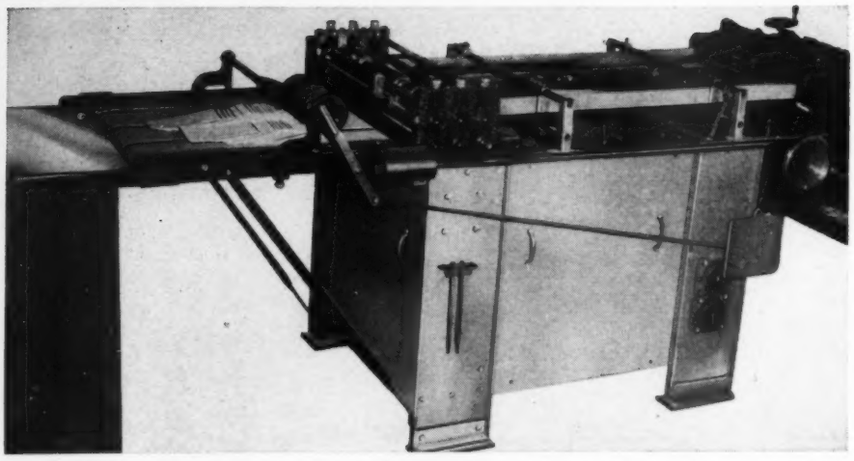


Attached to any gang stitcher, this automatic slitting machine by William Gross & Son, Inc. takes ganged-up or multiple job as it is stitched and rough-cuts it into single units.

AUTOMATIC SLITTING MACHINE FOR GANGED-UP OR MULTIPLE JOBS

An automatic slitting machine has been developed for all types of pamphlet work by William Gross & Son, Inc. Attached to any gang stitcher, the slitter takes the ganged-up or multiple job as it is stitched and automatically rough-cuts it into single units. Pamphlets are then ready for a final trim on the three-knife cutter.

Slitter is available in two sizes, for work up to 27½ in. and 38 in. An adjustable stacker delivery permits pamphlets to be counted and picked up in batches of five, or any multiple of five, up to 50. Circle No. 282 on Reader Service Card.

DOUBLE DOOR STORAGE CABINET

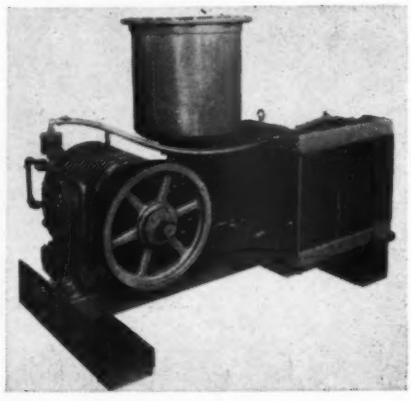
This steel double-door storage cabinet by Alan Wood Steel Co., Penco Div., has an overhanging cornice top at front which keeps dust from sifting into the interior. Shelves are adjustable on 2 in. centers and are available, in addition to the four supplied with the standard cabinet, up to a maximum of sixteen. Shelves are said to be able to support 35 lbs. per sq. ft.

Cabinet has chrome-plated handles, flush hinges and comes in gray, green and six special colors. Dimensions are 78 in. by 36 in. by 24 in. deep or 18 in. deep. Circle No. 285 on Reader Service Card.

HIGH VACUUM AIR COOLED PUMP EQUIPPED WITH SIX DUAL VANE SETS

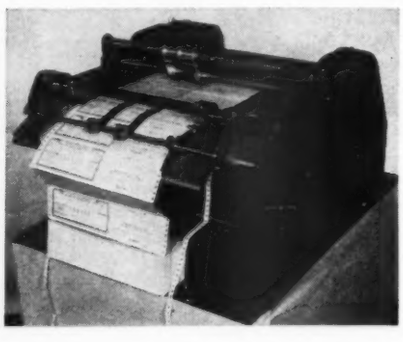
The Model 106 high vacuum pump unit equipped with six sets of dual vanes said to provide positive high pressure oil seal has been introduced by Leiman Bros., Inc. It is reported pump provides a steady vacuum of 29.9 in. Hg. in continuous operation, at an average temperature of 200 deg. F. It has a capacity of 50 to 105 c.f.m.

The balanced rotor is divided into six slots, each equipped with two independent steel vane sections. Sponsor claims the dual vanes provide two contact surfaces on the cylinder wall to seal off the low and high pressure side of the pump. The pump is cooled by a radiator cooled lubricating system, in which oil is continuously recirculated and cooled for passage through the pump. Lower temperature operation is said to enable speeds up to 800 r.p.m. and maintain oil viscosity for maximum lubricating properties. Circle No. 287 on Reader Service Card.



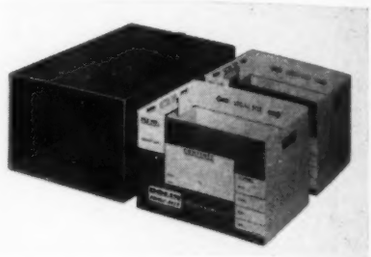
IMPRINTING DEVICE FOR USE WITH SELEC-TRONIC FORMS BURSTERS

Standard Register Co. has developed an imprinting attachment for its Selectronic burster line. Imprinter is claimed to make a clear, clean image, using a ribbon device, from an electro, type chase, or graphotype plate, on any continuous form including tab cards. Registration is held to within ±1/16 in. vertically and horizontally, states Standard. It is also said the impression, which may be varied to four different settings, can be preset to the desired form area without a sample run. Form length imprint scales indicate the correct position and rotated hand lever controls position while one lock lever holds it in place. Imprinter sits behind the burster, uses burster power through gearing and electrical circuits. It will handle forms from 3 in. to 17 25/32 in. wide and from 3 in. to 22 in. long and print in an area as wide as the form and 4⅜ in. on form length. Circle No. 283 on Reader Card.



SAME FILE ACCOMMODATES BOTH LEGAL AND LETTER SIZE RECORDS

Both legal and letter size records may be stored in the newly developed No. 65 file by Dolin Metal Products, Inc. File consists of steel case with two corrugated 15 in. by 12 in. by 10 in. record trays. Legal papers fit tray one way and letter size papers fit the other. Files interlock to desired heighth or width. Trays could also be used for storing production and order records. Collapsible tray covers are available. Circle No. 288 on Reader Service Card.



PLASTIC REINFORCED SHEET

A 22½ in. by 17½ in. sheet, reinforced on the 22½ in. edges with a 9/16 in. wide strip of DuPont's Mylar plastic film has been announced by G. J. Aigner Co. The sheet is of 20 lb. white bond stock and can be used for price lists, specification forms or directory sheets. Circle No. 262 on Reader Service Card.

PORTABLE STATIC DETECTOR

A new light weight, portable static detecting and measuring device, known as the Statitector, has been announced by Herbert Products Inc. The battery-operated 4 lb. instrument detects presence of static build-up through use of a telescoping antenna. Antenna is moved about suspect area and the machine records amount of static present on a calibrated meter scale. Spot where greatest amount of static is indicated is proper place for mounting a static eliminator. Circle No. 281 on Reader Service Card.

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Photomechanics and Printing

By J. S. Mertle and Gordon L. Monsen

Two authorities have pooled their knowledge in producing a technical book to cover every phase of platemaking and presswork in Graphic Arts reproduction processes.

Valuable source of information for all printing plant and production managers, superintendents and departmental foremen.

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PRINTING INDUSTRY PATENTS

Covering patents issued June 2, 9, 16, 23 and 30.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

TYPE COMPOSING APPARATUS

This photographic type composing apparatus is designed for projecting a given character upon the normal base line of type composition, or above or below it by a predetermined distance, according to the desired function of the character, without disturbing the normal sequence of successive character projections in the line of type. This is accomplished by mounting a photographic lens on a rotary support so that it can be easily swivelled to place a character in the desired position. No. 2,888,865 by William W. Garth, jr., assignor to Graphic Arts Research Foundation, Inc.

PHOTOTYPOGRAPHY

Alphabet stencils which simplify and accelerate the photocomposition of a line of text, and insure the proper spacing of the various letters of phototypographically composed matter, are provided by this patent. The letter elements are arranged in a novel, but simple manner so that composition can be effected by inexperienced operators. No. 2,890,634 by Edward Rondthaler and Harold A. Horman.

TYPEWRITER ATTACHMENT

This attachment can be used with any typewriter, but particularly an electric one, and is designed to feed a hectographic ribbon entirely independently of the typewriter drive system. This independent feed avoids smearing and undue strain of the ribbon and includes a novel magnetic brake system which detains the ribbon for the duration of one step and then releases it to provide an additional length of the ribbon. No. 2,889,908 by Peter Korner, assignor to International Business Machines Corp.

STRIP CASTING MACHINES

Printers' slugs, leads and rules, as formed on a die casting machine, are pulled in strip form from the machine in a manner to avoid buckling of the strip due to incomplete disengagement of the strip. This is accomplished by an improved clamp which alternately engages and releases the strip as the clamp is reciprocated longitudinally of the strip. No. 2,891,660 by Henry T. Honig.

TREATING MATRIX REFERENCE EDGES

The front edges of Linotype matrices are blackened by treating with a solution of a cupric salt, selenium or tellurium, a catalyst comprising arsenic trioxide, hydrochloric acid, an alcohol, alkylaryl sulfate, and water. No. 2,878,149 by Walter A. Mason.

Platemaking:

COATING FOR LITHO PLATE

The sulfonates are light sensitive materials of good storage capacity which are easily transformed into printing plates by applying a layer of the sulfonates onto a metal foil or metal plate. Such light sensitive layer may be the reaction product of aromatic or heterocyclic diazo sulfonate with diozonium salts of aromatic or heterocyclic amines. No. 2,890,115 by

TRIPLE DUTY TIME-SAVER for

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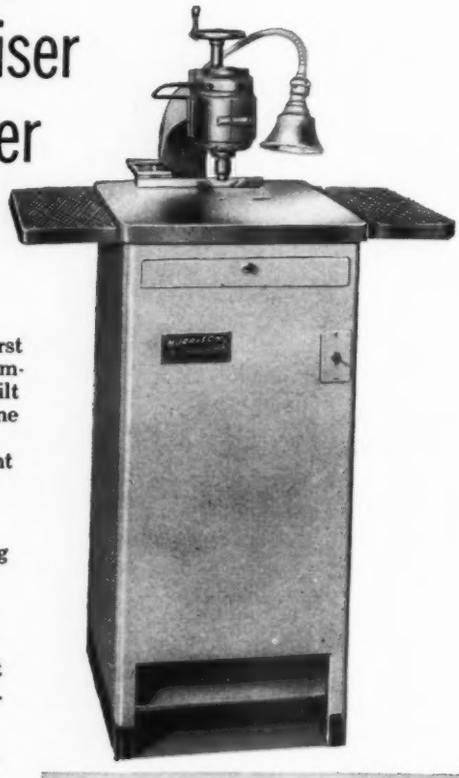

HERE, for the first time, is a *single* compact, precision-built production machine that performs THREE important jobs in every newspaper and printing plant — Routing, Mortising and Type High Planing . . . and completes all three jobs faster, easier, safer, with more accuracy, at tremendous savings in both time and labor! No need to invest in costly *single-purpose* machines. No need to tie up valuable floor space with three machines, when the new MORRISON ROUTER-MORTISER-PLANER does so much more — so much better.

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Oskar Sus and Georg Werner, assignors to Azoplate Corporation.

ETCHING BATH

Relief printing surfaces on zinc or magnesium are prepared by this process which is related to the Dow etching process. The bath is made up of a mixture of an aqueous solution containing 1 to 50% nitric acid, an etch factor increasing agent, and from 2 to 400 parts per million by weight of polyvinyl pyrrolidone. No. 2,890,943 by George Schwarz, assignor to Powers Chemco, Inc.

FABRICATING ELECTROTYPE SHELLS

Shells for use in letterpress printing are prepared by this apparatus comprising a mold which is attached flatwise to a case and is suspended within a vessel containing an electrolytic solution to plate a layer of metal, such as copper, on the exposed face of the mold. No. 2,890,992, by Edward P. Hoehl.

SOLVENT COMPOSITION

In the preparation of halftone relief printing plates which may be prepared by using a gelatin relief image as a resist by either photographic or mechanical means, this solvent is adapted to yield a better dot structure. It is made up of 1 part by volume dimethyl sulfoxide and 3 to 4 parts by volume isopropyl alcohol. No. 2,891,849 by Richard J. Whitbourne, assignor to Eastman Kodak Co.

TISSUE HELD DIMENSIONALLY STABLE

In preparing intaglio plates or cylinders by photomechanical means, this process maintains materials such as carbon tissue dimensionally stable during processing without interfering with the normal processing procedure. This is accomplished by securing a dimensionally stable strippable backing to the carbon tissue during processing. No. 2,892,711 by Roy S. Sanford, and George T. Howe, assignors to Roy S. Sanford & Co.

PROCESS FOR PREPARING IMAGES

Intaglio images suitable for use in gravure printing and for halftone printing plates may be prepared by this process which embodies photodegradation or photodepolymerization of a synthetic organic polymeric material. The image bearing sheets can be molded to form a curved printing surface, as in a cylinder press, or they can be tacked, glued or otherwise affixed to a suitable metal, wooden or plastic block which is used in a press. The sheets are dry, non-tacky elements which are easy to store. No. 2,892,712 by Louis Plambeck, jr., assignor to E. I. du Pont de Nemours and Co.

RELIEF PRINTING PLATE

Printing reliefs are prepared from photopolymerizable elements of this invention. These elements consist of a solid layer of a composition of the invention disposed on a suitable plate support. The composition comprises a major proportion of solid polyester, polyacetal or mixed polyesteracetal of a linear bydroxl polymer containing a large number of recurring intralinear vinyl alcohol units and a minor proportion of an ethylenically unsaturated addition polymerizable monomer, and a small amount of a free radical. No. 2,892,716 by Elmore Louis Martin, assignor to E. I. du Pont de Nemours and Co.

Printing Presses:

LITHOGRAPHIC DAMPENER

This improved dampener receives water from a contacting rigid intermediate roll and runs in contact with a plate on a cylinder. As a result, the nonprinting areas of the plate are wetted and thus adapted to prevent the transfer of ink from the inking roll except on the sensitized areas. The dampener shaft is supported from its projecting ends and is covered with a tubular base composed of resilient, rubbery material. No. 2,891,470 by Norman L. Rowe and Gustave Reischl, assignors to Ideal Roller and Mfg. Co.

ADJUSTABLE POSITION DOCTOR

To overcome the disadvantage of present art in which the rotation of a screen drum cannot be reversed because the doctor is applied to the drum at a fixed spot, this device makes it possible to apply the doctor to the screen drum at will either to the upper or the lower

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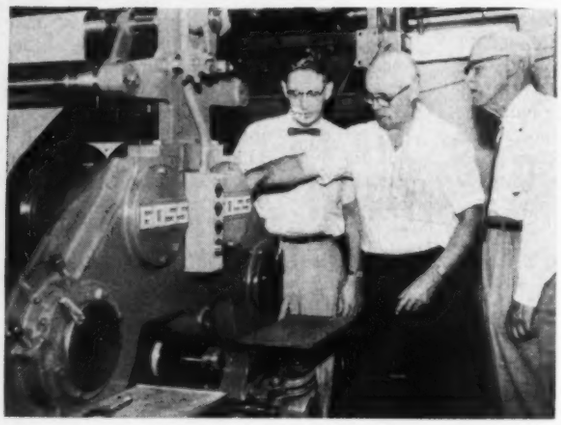


Goss Press Installed — A Goss Universal six unit web offset press has been installed at the Richmond (Ind.) *Palladium-Item*. Examining the 48 page press are, left to right: E. H. Harris, co-publisher, Horace Parker, pressroom and stereotype foreman, and R. G. Leeds, co-publisher.

side of the drum. No. 2,891,471 by Rudolf Sengewald, assignor to Windmoller & Holscher.

COUNTER ROLL STRIPPER

The apparatus strips a web roll from a rewind shaft and returns the shaft to the winding machine for the winding of further rolls. The shaft is held against axial movement at one end, and the roll is moved from the shaft and stripped from the shaft over the other end. The stripper engages the shaft at each end and releases it for reuse. The engaging means for one end of the shaft is carried by the roll moving means to travel with the roll during stripping. No. 2,877,960 by Leon A. Schmidt and Leonard Rockstrom, assigned to Cameron Machine Co.

INKING MECHANISM

The drive for this inking mechanism is designed to translate the doctor roll in an orbital path and includes a motion modifying mechanism which decreases the linear velocity of the translation imparted to doctor roll while it is in engagement with the surfaces from which it receives or to which it supplies ink, while increasing the linear velocity of the doctor roll between said surfaces. No. 2,891,473 by Harry W. Faeber, assignor to Time, Incorporated.

SOCKET FOR INK ROLLER

For use with a printing press ink roller, this socket assembly has a base mounted for limited movement with respect to press frame, and is spring-connected to same. The arrangement is such that an ink roller may be brought to bear resiliently and with predetermined and proportioned force against two spaced ink cylinders. No. 2,892,399 by Corson Walter Chase, assignor to Miehle-Goss-Dexter, Incorporated.

WEB TENSION CONTROL

Mechanical adjustments of this web control are reduced to a minimum by the use of a circuit including tachometer and variable resistors, for introducing various signal components, together with switch elements, for altering relevant circuit constants, to take into account altered conditions such as rotation of the reel in either direction, the stopping of the press, etc. All adjustments take place within the circuit itself. No. 2,892,597 by Fred A. Schmidt.

Feeding, Folding, Delivery:

SHEET-FEEDING DEVICE

This device feeds sheets to a uniformly rotating impression cylinder by a drum having similar operation to that of a stop cylinder but having a generally radially moving arcuate support surface for deflecting the sheet and has grippers for the sheet that are only closed each time the deflecting support has moved radially back into the drum and the drum has stopped rotating so that a source of vibration heretofore existing in transfer devices is eliminated. No. 2,892,630 by Hans-Bernhard Schunemann, assignor to Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft.

DOUBLE ROLL MANDREL

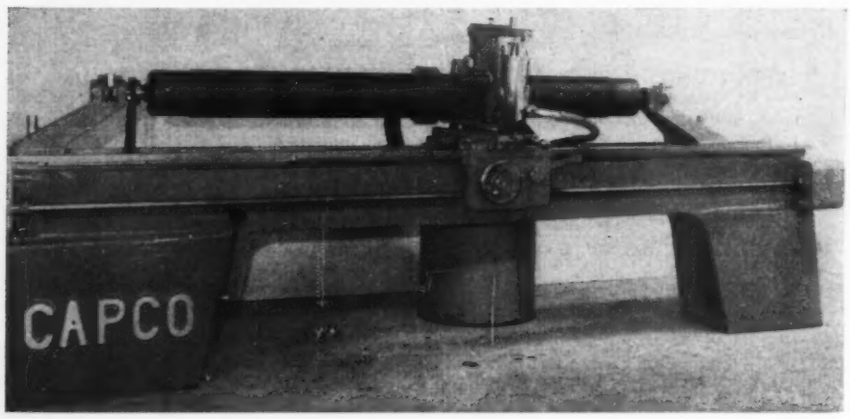
This mandrel makes it possible for a small newspaper plant to use narrow rolls of paper which they must accept in the purchase of regular 34 in. rolls of newsprint. The mandrel is adapted to receive a pair of detachable roll supporting collars so that two 17 in. rolls can be run instead of one 34 in. roll. No. 2,890,002 by John P. Thomas.

MULTIPLE SHEET EJECTION

For use with existing sheet feeding mechanism for printing presses, this ejecting device uses a novel combination of a sheet detector and deflector which automatically prevents the feeding of more than one sheet to a press. It is also automatically reset. No. 2,890,884 by Luis Mestre, assignor to Lewfor Development Corp.

JAW FOLDING MECHANISM

The tucking element of this folding device folds signatures, etc., into position where they are crimped by jaws in such a manner that even the inner sheets of multiple leaf gloss paper signatures cannot be withdrawn as the tucking element is retracted from the slot. This is accomplished by providing for the opening of the jaws while the tucker blade is



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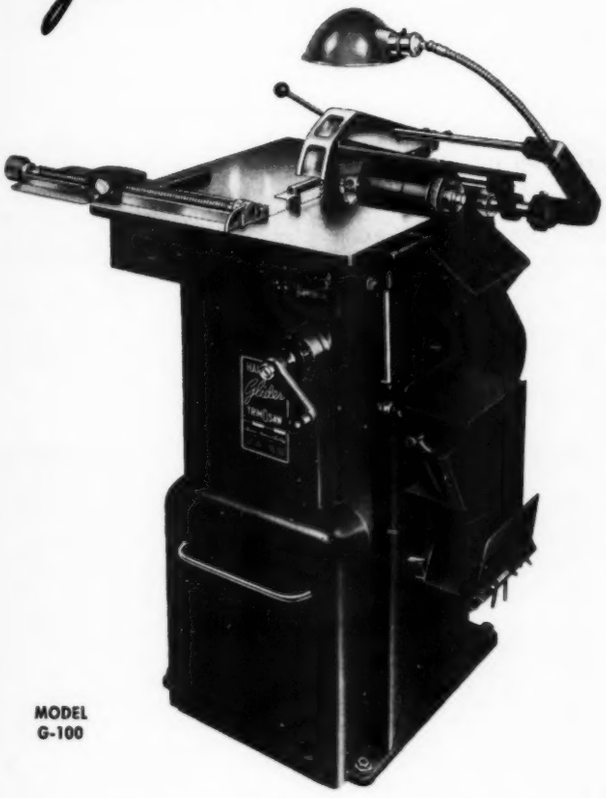

MODEL G-100

Sawing in your composing room is the same as machining in a machine shop. Every piece in a form must be sawed right just as every part in a manufactured product must be machined right in order to fit in with the others.

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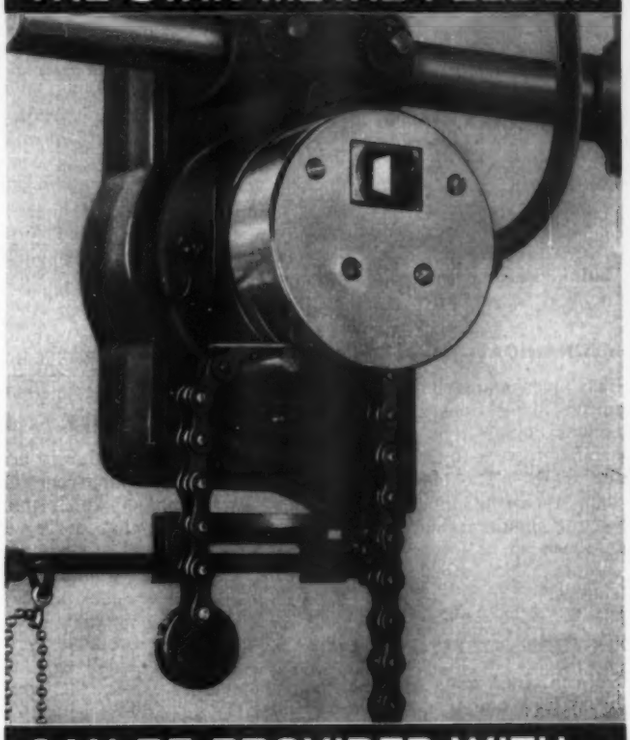

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The Signal Actuator will turn off the operator's light or turn on a buzzer when the next pig is needed. It can also be used to operate the "trouble" light on the top of the machine or to signal the machinist's panel board in larger shops.

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being withdrawn. No. 2,891,791 by Corson Walter Chase, assignor to Miehle-Goss-Dexter, Incorporated.

Bindery:

MAKING BINDER ELEMENTS

The binder elements of this invention are each composed of a wire that has been formed by the machine into a series of spaced ring-like elements united into a series of spaced rings united by tie rods. The elements are similar to the binder elements of patent 2,555,290. The machine for forming the elements is an improvement on that covered by patent 2,129,603. No. 2,891,585 by Vincenzo Catini, assignor to Spiral Binding Co., Inc.

MECHANICAL JOGGER

This mechanical jogger uses pulsating forced air currents which are directed between either light or heavy sheets of a random stack to eliminate drag between the sheets. The jogger is of simple design, including a cabinet housing the jogging motor and a support for a stack of sheets to be jog-stacked on top of the cabinet. No. 2,890,885 by Albert J. Harvey.

UNITIZED CONVEYOR SYSTEM

Self-contained units are employed, served by at least one or a plurality of piles of sheets of paper and operating independently of each other. These units are distinguished by being capable of variation, in both spatial and temporal sequence of operation, quite independently of the other components of the system, *i.e.*, a common conveyor, other placement units, etc. The application for this patent is a continuation of that filed for patent 2,830,813. No. 2,891,790 by Rudolf Hepp.

PATENT SEARCHES

For Patent Research in the U.S. Patent Office, or prompt estimate on any type of search, write

INVENTION, INC.
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Miscellaneous:

LABEL APPLYING MACHINE

Address labels are applied to magazines or newspapers for mailing by this machine which provides a novel article gripping conveyor for moving the magazines or newspapers past a labeling head. The grippers are controlled by a cam and follower so as to grip the leading edge of a magazine, and thereafter the grippers are operated by the magazine which has been delivered to a delivery conveyor, whereby the labeled article is moved in position beneath the last magazine delivered to the delivery conveyor in partial underlapping relation with same. The machine is similar to apparatus covered by patent 2,606,681. No. 2,889,029 by Wayne F. Ridenour, assignor to Cheshire, Incorporated.

ADVANCE COLOR PRINTING CONTROL

With this apparatus, it may be determined in advance of a multi-color printing job the appearance of all or a single color on a finished job. This is accomplished by the use of eleven transparent color cards or sheets, one sheet for each color used, *e.g.*, red, black, blue, etc. Each sheet is divided into 10 sections varying from 10 to 100% of the value of the color in question. Thus the selected value of each color may be viewed before the work is done. No. 2,891,323 by Arthur Eckstein and Bernard Stone.

COLLATOR CONTROL

A memory feature is incorporated in this collator control which is adapted not only to detect any incomplete signature but to correct the mishap and proceed so that a shut-down of the mechanism is not required. If a consecutive series of defective bundles or signatures occur, however, the collator is automatically stopped, so that the cause of the malfunction can be corrected. No. 2,892,627 by Donald R. Newhouse, assignor to T. W. & C. B. Sheridan Co.

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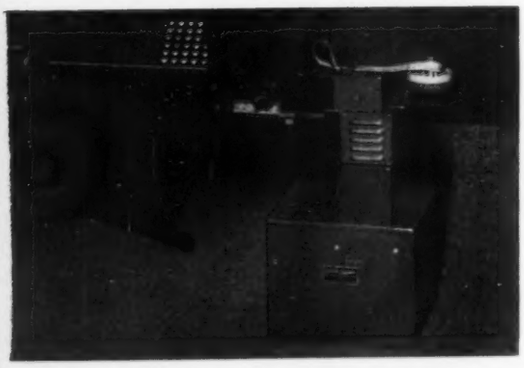

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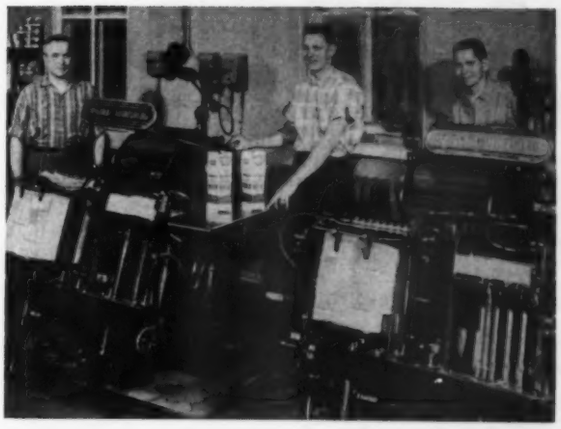
Industry-Education Awards

The Education Council of the Graphic Arts Industry, Inc. has established Elmer G. Voigt Awards in recognition of Elmer G. Voigt's efforts to encourage active industry-educational programs by national Graphic Arts industry organizations.

The awards will be presented for the first time during the second annual awards banquet of the Education Council to be held Dec. 5, Hotel Mayflower, Washington, D. C.

Voigt, president emeritus of the Education Council and former chairman of the board, Western Printing and Lithographing Co., Racine, Wis., will personally present the awards. Individuals to receive the awards will be designated by the 15 national Graphic Arts industry associations which are members of the Education Council.



Irving Press Aids in Emergency—Following a recent explosion at Brookhill Farms Dairy Plant, Chicago, Irving Press imprinted thousands of milk cartons on its two 10 in. by 15 in. Original Heidelberg platen presses in four hours. Members of Irving Press who helped with the emergency are, left to right: Walter Fukala, master printer; Fred, Jr. and Kurt Blumenthal, sons of owner Fred Blumenthal sr.

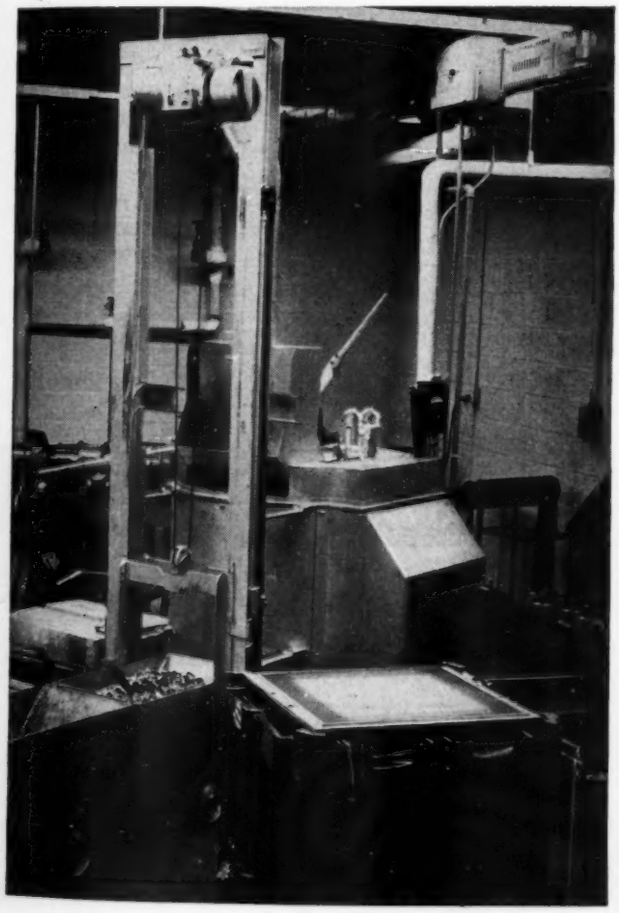
Air Conditioned Plant

(Continued from Page 49)

minutes. In this manner, more than 85% of ink mist and paper dust created by presses is eliminated. (Presses have been in operation since July 1957.)

The nucleus of the air conditioning system consists of three Carrier Corporation hermetically sealed centrifugal refrigeration machines (430 T. capacity each). Located in a third floor penthouse, these machines provide chilled water to 23 air handling units placed above the ceilings throughout the building. The compact water chilling equipment operates with negligible vibration or noise; the motor of each unit is sealed against air, water vapor, or refrigerant leakage.

Operating on the principle of heat transfer, the refrigeration machine chills water in its cooler shell (prior to circulation to air units) through transference of heat from the water to a cold liquid refrigerant. By absorbing heat from the water, the refrigerant vaporizes and is drawn up into the suction side of a two-stage centrifugal compressor. The compressed gas is then discharged into a condenser shell under pressure and at a higher temperature



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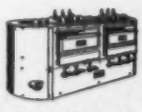

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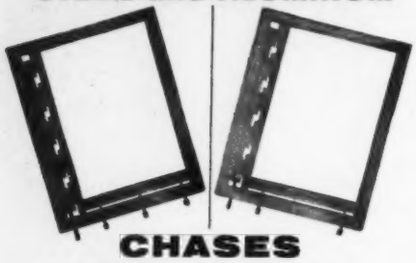

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than water in the condensing tubes. Here the heat originally gathered up by the air conditioning equipment is transferred to the condenser water. This heat charged water is then pumped 150 ft. underground to an outside cooling tower, where it is aerated and returned to the refrigeration machines' condenser shell. Meanwhile the refrigerant reverts to a liquid state again, drains by gravity to the cooler shell below and the cycle continues.

Placed strategically throughout the building, air handling units draw in outside air and mix it with return air from conditioned spaces. The air mixture is filtered, cooled and dehumidified by passing across the face of aluminum-finned copper tubing in which chilled water from the refrigeration machines is circulated. A slow speed, vibrationless fan distributes the conditioned air through supply ductwork leading to outlets in various room areas.

In winter, if the season should require, hot water from a boiler in the basement can be circulated through the copper tubing for heating purposes.

Control of Flue Fires

(Continued from Page 43)

the particular problem. If the fire department must be called in case of a fire, a better job can be done if the fire department is familiar with the location of all the trouble spots.

Extinguishing Fires

After a fire has once started some kind of extinguishing agent must be used to put it out.

(1) Water is not the best material to use because it can be relatively ineffective on oil and solvent fires and can cause explosions in the metal pot. If water is to be used, then it should be applied through fog nozzles. These nozzles merely break the water stream down into minute particles which float in the air like fog. If it is possible to add a wetting agent to the water then the effectiveness of the water will be increased.

(2) Soda and acid extinguishers have the same disadvantages as water alone. In addition, it is impossible to break the stream of liquid into minute particles.

(3) Foam type extinguishers will be more effective than water against the solvent and oil fire but can cause explosions in the metal pot and make quite a mess which must be cleaned up after the fire has been extinguished.

(4) Powder type extinguishers are effective. They will not cause explosions in the pot. The powder remaining after the fire has been extinguished is relatively easy to clean up with a vacuum cleaner.

(5) Pyrene type extinguishers are usually too small to be very effective. They can control an oil and vapor type fire, will not cause explosions in the pot and there is no residue to clean up. One precaution: Many such extinguishers, as well as the glass bulb type which is thrown at a fire, contain carbon tetrachloride. The vapors of this material, especially when used in an enclosed space, can cause unconsciousness and serious illness to the operator. If used on burning sulfur if can generate a poisonous gas which can be fatal.

(6) The carbon dioxide extinguisher, or as it is more popularly known, the CO-2, has proved to be the most satisfactory for the type fires we have been discussing. These extinguishers release carbon dioxide which blankets the fire and cuts off the supply of oxygen without which the fire cannot continue to burn. Fully automatic systems have been installed. These flood the flue with carbon dioxide almost as soon as a fire starts.

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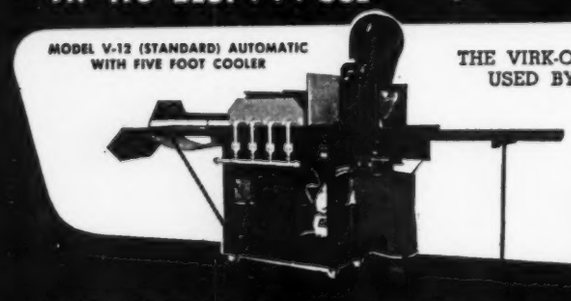

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Helpful Literature

(Continued from Page 38)

ROTARY NUMBERING HEADS

Force rotary numbering heads for numbering tickets, labels, tags, and coupons are discussed in a booklet issued by Wm. A. Force & Co. The 48 page illutrated handbook includes descriptions of heads, cams, and adapters for numbering jobs. Circle No. 373 on Reader Service Card.

HARRIS REGISTER BOOKLET

A 12 page two color booklet entitled *Background for Decision—Initial Register* has been prepared by Harris-Seybold Company. Booklet explains principles of front register, fit at the tail of the sheet, register at high press speeds and the effect of machine wear on register. Included are stop-motion stroboscopic photos of an offset press run. Circle No. 330 on Reader Service Card.

SCOTT PRESSROOM EQUIPMENT

Literature is being offered by Walter Scott & Co. concerning its high speed newspaper press units equipped with Wood reels, tensions and Autopasters. Information about the Scott 3-2 ratio folder is also given. Circle No. 306 on Reader Service Card.

MINIATURE NUMBERING MACHINE

A data sheet on the Wetter Miniature which numbers checks and documents has been prepared by Wetter Numbering Machine Co. The ⅝ in. wide numbering machine is of one-piece steel frame and has a T slotted bottom plate. Circle No. 307 on Reader Service Card.

WOOD NEWSPAPER EQUIPMENT

Illustrated literature has been prepared by Wood Newspaper Machinery Corp. to describe its equipment for newspaper plants. Data about Wood standard reels, pneumatically controlled tensions, belt driven Electrotab Autopasters and automatic operating devices is given. Circle No. 314 on Reader Service Card.

C&P HAND FED PRESS

Descriptive literature is offered by Chandler and Price Co. regarding its Model-N hand fed press which features adjustable bed track and extension roller tracks. 8 in. by 12 in., 10 in. by 15 in. and 12 in. by 18 in. sizes are available. Circle No. 363 on Reader Service Card.

SPHEREKOTE DRAWSHEETS

A sample swatch of Spherekote drawsheets is available from Minnesota Mining and Mfg. Co. Drawsheet surface is formed by glass beads fused to a resilient rubber base. Drawsheets are said to resist ink, have uniform caliper, and assure minimum bolstering. Circle No. 316 on Reader Service Card.

HANTSCHO PRINTING EQUIPMENT

An illustrated booklet describing Hantscho presses, folders, sheeters and roll stands is available from the George Hantscho Co., Inc. This equipment is for sheet signature, or rewind delivery. Circle No. 371 on Reader Service Card.

DOYLE SHEET CLEANERS

Doyle sheet cleaners, claimed to provide good printing without stops for unnecessary washups are described in a bulletin offered by J. E Doyle Co. Circle No. 341 on Reader Service Card.

DAYCOLLAN LETTERPRESS ROLLERS

Information regarding Daycollan letterpress rollers produced with a synthetic material has been released by Dayton Industrial Products Co. Rollers are claimed to be unaffected by temperature. Circle No. 334 on Reader Service Card.

DREISSIG BRONZING MACHINE

Descriptive literature is available from Henry P. Korn concerning the Dreissig Kombi 10V heavy duty flat bronzing and dusting machine. Intended for use in tandem with a printing press, machine is equipped with 10 dusting bands. Circle No. 336 on Reader Service Card.

SPEED-FLEX PRESS

Information regarding Speed-Flex presses has been published by Orville Dutro & Son, Inc. Presses may include offset printing, rubber plate printing, or rewinding units. Circle No. 364 on Reader Service Card.

STATIC ELIMINATOR

Literature concerning Simco midget static eliminator for presses, folders and cutters has been prepared by Simco Company. Circle No. 355 on Reader Service Card.

IPI SPEED KING COLORS

A Speed King color card is available from Interchemical Corporation. Speed King's 18 colors are claimed to be easy to mix and fast drying. Circle No. 345 on Reader Service Card.

G-E POLYDYNE DRIVES

A 16 page, two color booklet describing the new line of Polydyne mechanical adjustable speed drives has been released by General Electric Co. Included are principles of operation, configurations and features. Circle No. 348 on Reader Service Card.

Bindery, Mailroom

GBC BINDING EQUIPMENT

A plastic bound 14 page booklet illustrating General Binding Corp.'s metal and plastic binding equipment has been issued. Plastic bindings are available in 13 colors including gold, silver, white and clear. Circle No. 332 on Reader Service Card.

FEEDER-STITCHER UNIT

Literature has been prepared by Dexter Company, Div. Miehle-Goss-Dexter, Inc., regarding the McCain Saddle-Matic unit. Stitcher, two stitcher heads and two automatic feed stations are included with unit. Size range from 3½ in. by 6 in. to 11½ in. by 15 in. Circle No. 360 on Reader Service Card.

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For More Information Circle 53 on Reader Service Card

flip-top

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Eastern Sales and Service:
214 Fourth Avenue, New York, N.Y.

Circle 138 on Reader Service Card

Many printing plant executives pass along copies of PRINTING PRODUCTION regularly to interested employees. In this way, a more interested production organization will be maintained.

KEYSORT CARD GROOVING UNITS

Specification sheet on Keysort card grooving equipment for data processing has been released by Royal McBee Corp. Three units are illustrated and operating features and specifications are listed. Circle No. 327 on Reader Service Card.

NYGREN-DAHLY LITERATURE

Information is available from Nygren-Dahly Company regarding its 26 in. combination feeder perforator jogger. Unit is reported to be completely automatic and is claimed to handle 8000 sheets per hr. Circle No. 313 on Reader Service Card.

MACEY MACHINES

A descriptive 20 page booklet has been published by Macey Company, Sub. Harris-Intertype Corp., regarding its collating, gathering, stitching, and trimming machines. Specifications are included. Circle No. 323 on Reader Service Card.

SHERIDAN MAGNACRAFT MACHINES

SR-1 tipping, rotary labeling, and Model E wrapping machines of the Magnacraft line are described in a publication released by T. W. & C. B. Sheridan Co. Speeds 18,000 per hour are claimed for the rotary labeling machine. Circle No. 352 on Reader Service Card.

PACKAGE TYING MACHINE

Literature has been published by National Bundle Tyer Co. regarding its Model SRA-57 package tying machine. It can be operated manually or automatically and uses jute or sisal, single or cross tie. Circle No. 339 on Reader Service Card.

Miscellaneous

STEEL FLOOR PLATE

Alan Wood Steel Co. has issued its Bulletin AL-N5 to describe the A. W. Algrip abrasive rolled steel floor plate, which can be used as an independent flooring overlay. It is recommended for use wherever slipping hazards exist. Circle No. 372 on Reader Service Card.

PAPER PRICE LIST SUPPLEMENT

Bulkley Dunton & Co., Div. Carter Rice Storrs & Bement, Inc., has available the 1959 price list supplement for printing papers. Included is a Hammermill Graphicopy insert, covering a line of papers for printing, duplicating and office use. Circle No. 351 on Reader Service Card.

HOT SPOT CARBONIZING

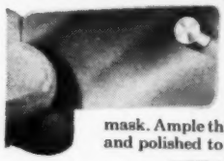
What Every Printer Should Know About Hot Spot Carbonizing is the title of a folder prepared by Appleton Machine Co., Doven Division. Doven Hot Spot Carbonizing is for letterpress and cylinder presses. Circle No. 356 on Reader Service Card.

ALTENEDER INSTRUMENT CATALOG

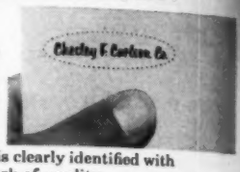
Stainless steel T-squares, triangles, straightedges and drawing instruments and scales are described in a catalog issued by Theo. Alteneder & Sons. Circle No. 349 on Reader Service Card.

Ask Carlson

how to get and hold Perfect Registration



This $1.35 Carlson stainless steel register pin sent free with the answer. Thin base. Will not buckle mask. Ample thumb space. Machined and polished to exactly .250″.



This generous sample of Carlson Mask also sent free with the answer. Each sheet of Carlson Mask is clearly identified with the Carlson mark of quality.

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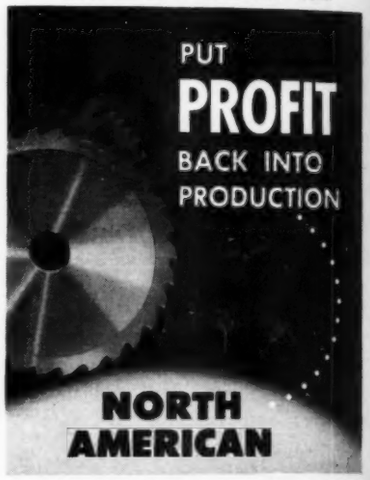

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COMPANY _____

COMPANY ADDRESS _____

CITY _____ ZONE ____ STATE _____

KEY NO. _____

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TITLE AND DEPT. _____

COMPANY _____

COMPANY ADDRESS _____

CITY _____ ZONE ____ STATE _____

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BUSINESS REPLY CARD
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POSTAGE WILL BE PAID BY

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READER SERVICE DEPARTMENT

MIDWEST SUPPLIES CATALOG

Midwest Publishers Supply Co. has published a catalog descriptive of its line of composing, stereotyping, engraving, electrotyping and pressroom equipment and supplies. Circle No. 347 on Reader Service Card.

ALBANY PRESS LUBRICANTS

Service Bulletin No. 10 concerning Albany press lubricants is available. Lubricants by Adam Cook's Sons, Inc. are offered for presses equipped with grease cups, with pressure fittings, for oil lubricated presses, and for gears, cams, chain drives, etc. Circle No. 344 on Reader Service Card.

TRANSKRIT SPOT CARBONIZING

Transkrit Corporation has prepared a new specimen portfolio containing samp'e forms featuring Transkrit hot wax spot carbonizing. The use of Transkrit spot carbonizing is claimed to eliminate the need for interleaving with carbon sheets. Circle No. 338 on Reader Service Card.

STATIONARY AIR COMPRESSOR

Specifications, cross section drawings and installation photographs regarding WN-112 stationary air compressor marketed by Joy Manufacturing Co. have been released. The compressor is designed for pressures to 125 p.s.i. with piston displacements from 468 to 974 c.f.m. Circle No. 331 on Reader Service Card.

ELECTRIC POWERED FORK TRUCKS

Information on Elwell-Parker Electric Co.'s electric powered 4000, 5000, and 6000 lb. capacity fork trucks has been released. Operating and design features are included. Circle No. 328 on Reader Service Card.

CAMBRIDGE PAPER HYGROSCOPE

Bulletin M-353 regarding the Cambridge paper hygroscope is available from Cambridge Instrument Co., Inc. Hygroscope is used to indicate the difference, in terms of relative humidity, between pressroom air and paper stock. Circle No. 308 on Reader Service Card.

Automatic Mailing Machine—In operation at T. S. Denison and Co., Inc., Minneapolis publishers and printers, is the automatic inserter mailing machine manufactured by Bell & Howell Phillipsburg Co. With one operator the equipment is claimed to stuff up to six items, accommodating various sizes of commercial envelopes.

SILICONE RELEASE AGENT

Midwest Publishers Supply Co. has issued a bulletin regarding Dow Corning Corp.'s Slipicone, a silicone lubricant and re.ease agent. Silicone treated Sight Saver tissues are also offered. Circle No. 324 on Reader Service Card.

NYLON REINFORCED FLOOR MATS

A bulletin on floor mats, tile and stair treads produced from a new compound is offered by American Mat Corp. Known as Nyracord compound, the product is made from a composition of rubber with reinforcing ny on synthetic fiber. Circle No. 326 on Reader Service Card.

MULTIFORM STEEL RULE DIES

Literature has been prepared by J. A. Richards Co. to describe its Multiform steel rule dies for the printing industry. The firm also manufactures Multiform saws, benders, cutters, and bridgers. Circle No. 311 on Reader Service Card.

A STUDY IN DIMENSION

Automatic Transportation Co. has available an 8 page booklet on a study of warehouse layouts and narrow or wide aisle prob.ems. Illustrations of Automatic equipment in operation are included. Circle No. 321 on Reader Service Card.

DAY-GLO COLOR GUIDE

Three Day-Glo color guides for screen process, letterpress, and lithography are offered by Switzer Brothers, Inc. Each guide contains five color chips of the fluorescent ink printed on each of the three processes. Circle No. 317 on Reader Service Card.

NOLAN METAL REMELTERS

A bulletin containing information on the Nolan metal remelter has been published by Nolan Corporation. The remelters are available for either gas or electric heat in capacities from 600 lbs. to 20 T., or larger on special order. Circle No. 310 on Reader Service Card.

SPEED PRODUCTION WITH RICHARDS'

SAWS • ROUTERS • MORTISERS

Stereotype Saws Three Sizes

Curved Plate Routers Tubular or Semi

Flat Plate Routers Three Sizes

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Special Routers Built To Order

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For More Information Circle 150 on Reader Service Card

NEW

HIGH QUALITY NEWSPAPER

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WITH THE SAME RELIABLE NAME

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• Beveridge now offers two completely new newspaper mats bearing the old reliable name—Beveridge High-Speed for general work—capable for multiple casting and Beveridge Multi-Cast for automatic equipment. Both new mats are easy to use, highly compressible, easy to mold and fast drying.

For unexcelled durability with high resistance to fracture, rely on these new mats with old familiar names.

NEW PRODUCTS DIVISION OF

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For More Information Circle 20 on Reader Service Card

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Chicago 23, Illinois

Circle 111 on Reader Service Card

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SEPTEMBER 1959

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WILLIAM L. OSBORN, Eastern Advertising Manager, 2709 Grand Central Terminal, New York 17, N. Y. Phone MUrray Hill 6-5980.

MELBURN O. SIMMONS, Mid-West Advertising Manager, 333 North Michigan Ave., Chicago 11, Ill. Phone DEarborn 2-6467.

WM. A. AYRES, West Coast Representative, 233 Sansome St., San Francisco 4, Calif. Phone YUkon 6-2981.

JACK DeBAR SMITH, Wm. A. Ayres Co., 5880 Hollywood Blvd., Hollywood 28, Calif. Phone HOllywood 2-1133.

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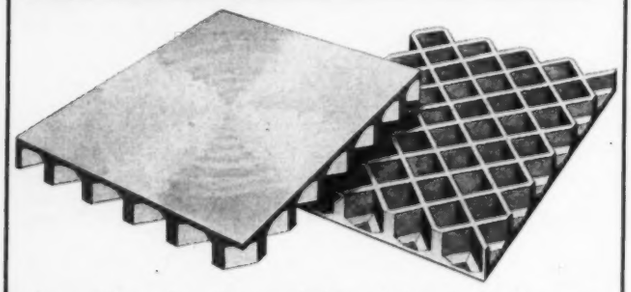
LITEWEIGHT ALUMINUM PLATE BASE



Less than ¼ the weight of lead and more accurate than wood, this aluminum base will *stay* accurate, outlast them both. Made to .001", square, clean, easy to tape, easily cleaned, it saves lockup, makeready, cleanup time. Presses run smoother and last longer under a lighter load; pressmen do, too. Get any size to 9" x 10¾" in any thickness to type-high for mounting rubber plates, plastic ad plates, electros, stereos, originals. Handy full size pieces can be cut on your own metal sawing equipment to suit your needs or locked up together on big jobs.

Printing Plate Supply Company

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PHONE ANDOVER 3-3937

For More Information Circle 145 on Reader Service Card

Roll-Wound Paper

Efficiency Expansion Chucks

In one operation, lever the cam and lock it. It won't slip —ever. Unwind, rewind, or brake easily. There are efficiency expansion chucks for either fibre or steel cores up to ten inches in diameter—for shafts of 1" to 3½" in diameter in graduations of 1/16".

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Write for the full time and money saving facts to—

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For More Information Circle 184 on Reader Service Card

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CLOSING DATE—15th of month preceding date of issue. We will forward all mail addressed to box numbers.

FOR SALE

8 Portable Capco Color Ink Fountains, *brand new in original boxes.* $300 each including shipping charges. Write to: Hector Cintron, El Imparcial, San Juan, P. R.

FOR SALE

Model SL-VF Ser. #45-52 Cheshire Heavy Duty Automatic Mailing Machine for Tabloids, Magazines, Circulars, etc. Available immediately. Now on production. Reply Box 591, PRINTING PRODUCTION

FOR SALE

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POSITION WANTED

After Jan. 1, 1960, position as Production Director on newspaper under 100,000 circulation. Competent in all areas and particularly composing room. Willing to take job-knowledge, aptitude or IQ tests. Reply Box 588, PRINTING PRODUCTION.

ARE YOU OUR NEW FACTORY SUPERINTENDENT?

He is young, aggressive, intelligent and intensely ambitious. He has sound technical background in all phases of lithography. He has outstanding ability to organize, plan, schedule and control. He is cost conscious and understands work simplification and quality control. He uses modern training methods. His men respect his knowledge and ability, admire his fairness and like him personally. He is receptive to new ideas. He is probably Superintendent of a small plant, Assistant Superintendent or department head in a medium or large plant, and while loyal to his company has reached a dead-end.

This progressive, rapidly growing and successful California company answers his need for a permanent, pleasant and highly profitable position with a truly unlimited future. Send complete resume in confidence to Box 590. PRINTING PRODUCTION

POSITION WANTED

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For More Information Circle 182 on Reader Service Card

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Flat-Ground TURTLE

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NOLAN Corporation ROME, N. Y. Dept. 929-C

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CONSULTING—DESIGN—DEVELOPMENT
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For More Information Circle 211 on Reader Service Card

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FOR OFFSET AND GRAVURE
We specialize in good, fast, economical composition.
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For More Information Circle 19 on Reader Service Card

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ENVELOPE PRINTING
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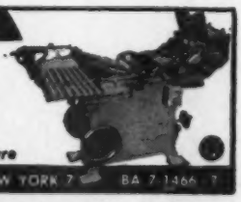

B. VERNER & CO., INC. 52 DUANE ST. NEW YORK 7 BA 7-1466

For More Information Circle 186 on Reader Service Card

WEBENDORFER
Web offset presses for the commercial, book, carton, label and publication fields.
SAUGATUCK, CONNECTICUT

For More Information Circle 190 on Reader Service Card

CONTACT SCREENS
The Universal*, a new, improved gray contact screen, shoots faster, gives more contrast if desired and better tone values
Rulings: 32, 45, 55, 60, 65, 75, 85, 100, 120, 133, 150, 175
Sizes: 8 x 10 to 23 x 29 in.
Angle-ruled screens to 23 x 29 in. at same prices.
Write for price list and descriptive folder
CAPROCK DEVELOPMENTS 165 Broadway, New York 6, N. Y. REctor 2-4028

For More Information Circle 42 on Reader Service Card

CLI Graduates 106—Recent graduates of the Chicago Lithographic Institute received personal congratulations at the 12th annual graduation ceremonies from, left, Harry F. Sphonholtz, president, Amalgamated Lithographers of America Local No. 4 and, right, Ernest Karge, president, CLI. Diplomas were awarded in photography, litho art, stripping, platemaking, pressmanship, estimating, and special courses. The class of 106 was one of the largest in 12 years.

ITCA Typographic Design Winner—Sidney J. Brugger, apprentice, Hoflund-Schmidt Typographic Service, Inc., Denver, Colo., holds award plaques received in 1957 and 1959 International Typographic Composition Assoc.'s apprentice contests. His 1959 winning entry in the single-project contest was the design of a convention advertising flyer.

GRAPHIC VIEWS

of the Printing Industry

Installs Offset Press—Stanley Publishing Co., Chicago, recently installed a Hantscho web offset press. Left to right: Charles Wene, vice president, Reliable Paper Co.; Howard Fiedler, vice president, Poole Brothers, Inc.; Wm. S. Wade, executive vice president, Stanley; Emil G. Stanley, president and publisher, Stanley Co.; Marvin H. Motschman, president, Reliable; and John F. King, International Paper Co.

Presents Heidelberg Boot—Norman Nip (left), vice president, Tongg Publishing Co. and immediate past president of the Honolulu Craftsmen's Club accepts presentation of the Heidelberg Boot from Russ Quaintance, secretary of the Honolulu Club. The boot is a gift from the Heidelberg (Germany) Craftsmen's Club.

New Chicago Craftsmen Officers—Members of the Chicago Craftsmen's Club have elected Gordon W. Wilson, vice president of the Oxy-Dry Sprayer Corp., as president. Other officers are, seated, left to right: John A. Radziewicz, Service Offset Co., first vice president; Wilson, and Robert E. Ludford, jr., Chicago Litho Products, second vice president. Standing: Warren B. Anderson, Chicago Rotoprint Co., treasurer; A. Norman Romsted, U. S. Lithograph Co., recording secretary, and Daniel R. Fasano, LBS Litho Mailers, financial secretary.

International Printing Week Poster—The two color poster that will be used for International Printing Week, Jan. 16-23, 1960, is examined by Gerald L. Flood, left, chairman of the Intl. Printing Week Committee, and George Wood, Heidelberg Pacific. The poster was printed by Heidelberg Pacific, Inc., Los Angeles.

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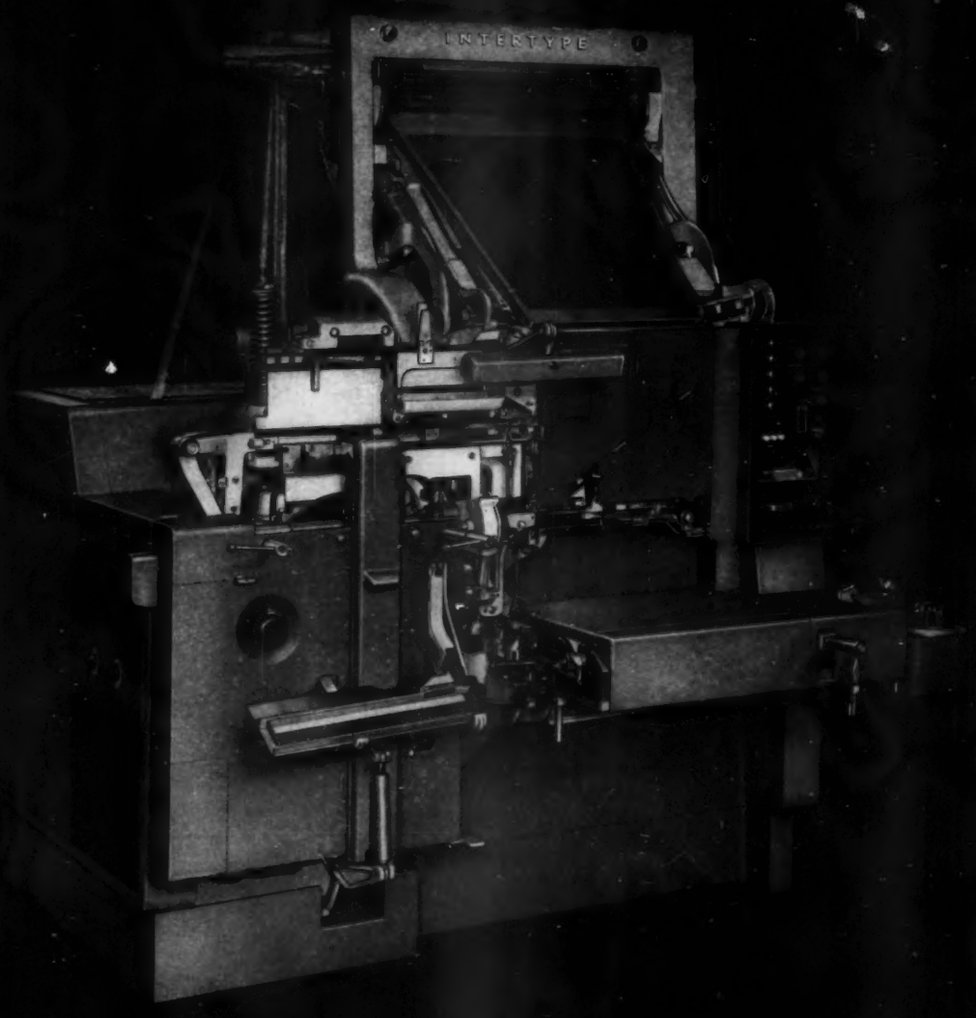

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